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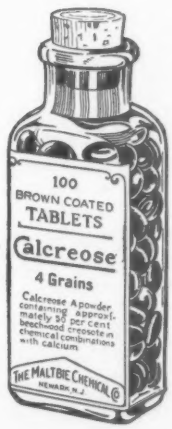

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Original Communications

CONCERNING SOME OF THE OCULAR INTERPRETATIONS OF DISORDERS OF THE PITUITARY BODY AND THEIR NON-SURGICAL TREATMENT.*

By G. E. De SCHWEINITZ, M. D., Philadelphia, Pa.

The ocular interpretations of pituitary body disorders, to wit, the visual disturbances, whether there is excessive activity of the glandular epithelium (hyperpituitarism), or diminished function of the anterior lobe (hypopituitarism), represent the most common neighborhood signs of hypophyseal lesions. The visual phenomena are usually classified as follows:

1. Impairment of acuteness of vision; (2) lesions of the intraocular optic nerve apparatus; (3) alterations of the visual field, and (4) anomalies of ocular motility. Such ocular symptoms as visual hallucinations, chromatopsia, photophobia, exophthalmos, palpebral pigmentation and glandular hypertrophy may be dismissed in passing mention.

Impairment of Vision, naturally, may vary from blurred sight to complete blindness, according to the degree of disturbed function of the optic pathways which is present, and depends, in largest measure, upon degrees of compression of the chiasm, tracts, and optic nerves, but does not bear any close relation to the size of the sella (Cushing). For instance, in acromegaly, the size of the sella may be conspicuous, but the evidence of poor vision entirely lacking.

To one manifestation of disturbed vision I desire again to call attention, and shall quote from a previous communication on the subject. There is a form of blurred vision, of which the patient is definitely conscious, which antedates by a long period of time the amblyopia which is associated with ophthalmoscopic nervehead changes, or any form of scotoma, or any visual field defect (searched for by the usual methods), or any failure to read normally the ordinary test types. This period of time may last for months, even for years; in one patient it continued for almost two years before change in the color of the disc was noticeable. Doubtless, careful estimation of the light sense would reveal that it is deficient, just as it is in chronic glaucoma long before the conspicuous symptoms of the disease are present. It is a symptom difficult to describe. In an attempt at description one patient expressed herself thus:—"Yes, I can see and read the letters which I ought to see and read, but I see them as if I was in a brown study." How frequent this phenomenon is I do not know; it readily may escape detection. Evidently, it interprets a beginning physiologic block to light impulses; indeed, the later primary atrophy of the optic nerve represents a more or less complete similar block, but not a destruction of the nerve fibers in those patients whose sight is restored by operation or organotherapy. The importance of further study of this condition is evident. It is not too much to say that, in the presence of otherwise unexplained, long-continued visual disturbances, investigation of the hypophyseal region is in order.

Optic Nerve-head Changes. Although Uhthoff records about 9 per cent of choked disc and an almost equal percentage of optic neuritis in pituitary body disease, it may be said that primary disc edema or neuritis is, as compared with so-called simple atrophy of the nerve-head, comparatively uncommon. In a rather large experience I have noted in only three instances what I assume was a primary choked disc. Naturally, should the hypophysis tumor so increase in size that decided elevation in the general cerebral pressure follows, papilledema may be implanted on an atrophic or pallid nerve, but this is not primary choked disc.

Briefly, if in pituitary body dise.e the

*Read by invitation at the first meeting of the Virginia Society of Oto-Laryngology and Ophthalmology, in Richmond, February 3, 1921.

ophthalmoscopic signs are not negative, they usually are those of simple atrophy with certain modifications. Pallid discs in the presence of almost and sometimes complete blindness may regain function after operation or organotherapy; in other words, this so-called primary atrophy may represent, as before stated, a more or less complete physiologic block to light impulse, and not a destruction of the nerve fibers. Ultimately, pressure being unrelieved, a real atrophy may supervene, precluding the possibility of restoration of vision. But I have seen blindness, that is, no light perception, lasting for six weeks, followed by complete restoration of vision to the standard type as the result of non-surgical treatment. While it may be too much to say that the ophthalmoscopic appearances of the nerve-head are ever actually characteristic of hypophysis disease, they are often significant in that the disc has a somewhat waxy pallor, with a suggestion of yellow, and later the spaces of the lamina are often conspicuous, and in some instances the disc resembles that seen in methyl alcohol blindness.

Summary. Therefore, from the direct visual standpoint, we have as salient signs: Often an early indistinct vision, or ill-defined blur, without ophthalmoscopic change, probably interpreting the earliest stage of physiologic blocking of light impulses; later on, with or without such antecedent blurred vision, nerve-head pallor, which at first and for a long time may continue to represent a condition of blocking of light impulses, and not a destruction of nerve fibers, and the nerve function may entirely be restored by operative or therapeutic measures; finally, pressure not being relieved, the pallor indicates nerve destruction and permanent blindness, or great depreciation of vision—the pallor is usually somewhat waxy in appearance, with a suggestion of yellowish tint.

Visual Field Phenomena. The common development of bitemporal hemianopsia as the result of chiasmal pressure is so conspicuous that the diagnosis of pituitary body disease is sometimes deferred or not made if homonymous lateral hemianopsia is present, and yet this defect is not a very infrequent phenomenon, depending, of course, upon the type and place of pressure.

Omitting, however, further reference to this type of field defect, it is probable that bitemporal hemianopsia, which when present is certainly the most typical ocular symptom, occurs in fully 50 per cent of patients with hypophysis lesions and disease of the infundibulum, with or without acromegaly.

The gradual development of temporal hemianopsia is illustrated in this diagram (after Cushing), beginning with the so-called "temporal slant," and early indentation of the color lines until the temporal half of the field is lost, but the macular representation still remains. Later, this is encroached upon, and only a part of the nasal field lingers, which finally disappears when blindness is complete. In spite of what the books say, the boundary line is hardly ever regular or vertical. In Cushing's series, typical bitemporal hemianopsia with a vertical meridian which bisects the macula was conspicuously rare, an observation which is confirmed by Evans in his well-known article, and certainly I have rarely seen it in the many fields which have been charted by myself and by members of my staff. It must not be inferred from what I have said in regard to the sharpness of the boundary between the seeing and the blind field that a typical vertical meridian which bisects the macula does not occur. It is only that one does not often have the opportunity of making the examination when, to use a modern expression, "the field lingers" with this shape for a long period of time.

Although it is usually stated, and in general terms correctly, that the defect for colors precedes that for form and white, it is now well known that if modern methods of perimetry are employed—the Bjerrum method, the tangent screen of Duane, the campimeter, etc.—the uncertainty which always surrounds perimetry with colored objects is obviated, and we can get just as good and accurate results with white objects sufficiently small.

Scotomas. Although I have briefly outlined the evolution of temporal hemianopsia from the earliest temporal slant to complete disappearance of the nasal field, if one wishes to be exact in this business a careful search for scotomas, often antedating large field defects, must be made. These scotomas have in some measure the same relationship to typical field deficiency, generally temporal, as does the faint early blur of which I have spoken to the later grave degradation of visual acuteness.

It is not possible to arrange an accurate classification of these scotomas, partly because of the variations to which the visual fields of

patients with pituitary body disease are subject. Indeed, the alterations in the visual fields in these circumstances (and now I mean not alone the scotomas, but the entire fields), is a characteristic phenomenon, and has been commented upon. They vary not only from day to day, but sometimes in different portions of the same day, the variations naturally depending upon alterations in the pressure exercised by the struma, cyst, or growth.

Referring to the scotomas particularly, however, it may be said in general terms that they usually are small at first, para-central, and later may expand into larger, bitemporal hemianopic defects, in their turn the forerunners of complete hemianopsias. Rarely a binasal hemianopic defect is discovered, or the scotoma may be situated up and out from the fixing point, or less frequently, cap the fixing point, that is, be situated directly above it, but also continuous with it. Aberrant scotomas, that is, those which develop some distance from the fixing point, in the center of either of the lateral fields, are also occasionally observable, that is, there are dark islands in an otherwise preserved field. In like manner and in contrast to this, we may sometimes find a light island in the center of an otherwise dark field, and the finding of such an island, sometimes discoverable only by using as a test object a small electric light, enables us to judge the character of the original field defects, that is, whether there was a bitemporal hemianopsia, or a homonymous lateral hemianopsia.

It would be interesting, taking Wilbrand and Saenger's plan of the distribution of the fibers in the optic chiasm as a guide, to attempt to place the probable situation of the lesion which these scotomas interpret, but in large measure such an attempt would be a piece of guess work, except in a few instances. Thus, in all probability bitemporal hemianopic scotomas could be explained by assuming that a circumscribed focus of disease proceeding from the floor of the recessus to the surface of the posterior portion of the chiasm, meets the crossed fibers of the papillomacular bundle and produces this visual-field defect. On the other hand, should the lesion extend symmetrically on both sides of the posterior upper surface of the chiasm, the uncrossed fibers of the papillomacular bundle would be affected and binasal hemianopic scotomas would result. In other scotomas which later are elaborated into large bitemporal hemianopic scotomas, and ultimately into a complete bitemporal hemianopsia, apparently the lesion would first involve the crossed bundle and the crossed papillomacular bundle in their inferior portion. As Bartels points out, it may happen that although the visual disturbances may depend on the presence of a central scotoma, no clear explanation for its presence is demonstrable at autopsy. Undoubtedly, vascular constrictions are responsible for some of these defects.

Summary. Although bitemporal hemianopsia is a characteristic field phenomenon, indicating chiasmal pressure, it is not necessary that a hypophyseal tumor shall be interpreted by such a field, because the neighborhood visual-field symptom in a fair number of cases is a homonymous lateral hemianopsia. Referring, however, particularly to the types of visual-field disturbance which terminate in bitemporal hemianopsia, the temporal field tends to be lost first from above downward, although this is not an invariable rule. This is the temporal slant to which reference has been made. At the same time there may be an indentation in the color field, tending to loss of its temporal boundaries, or the same indentation may be found using white test objects with the aid of small test object perimetry. Gradually, progress takes place until finally the entire field disappears. This is the usually described evolution but, in many of the instances, even in the earlier stages of the temporal slant, or without its presence, the small, paracentral and hemianopic scotomas appear, expanding in the manner described until the loss of the half field is complete.

But remarkable variations of the field are not uncommon. Doubtless all of us have noted a hemianopsia on one day, when on the next day it had disappeared, or the field had assumed an entirely different shape, due to alterations in the vascular pressure. In a certain number of cases we have a unilateral hemianopsia, and complete, or practically complete, blindness in the opposite eye. The two eyes are rarely affected to an equal degree. It is probable that in most instances as the result of treatment, the restoration of the field is in a reverse order to that in which it was lost, that is, the lines of the visual field restore themselves from below upward in a series of sloping curves. Doubtless all of you have seen the very interesting studies in this respect

which were made by Dr. Walker in Cushing's service.

Anomalies of Ocular Motility. This may be briefly dismissed. Elaborate statistical information indicates that in from 10 to 27 per cent. of the cases of hypophyseal disease there is some implication of the exterior ocular muscles, generally those supplied by the oculomotor, but isolated paralysis of the external rectus is not entirely uncommon, and I have seen isolated palsy of the superior oblique. Occasionally, a complete exterior ophthalmoplegia is manifest. This I have seen once or twice. It is referred to by Uhthoff.

Naturally, patients with pituitary body disease may be the subjects of syphilis. The association between hereditary syphilis and pituitary body involvement is well known, but the subject of acquired syphilis may also be the victim of a hypophyseal growth, and it is not necessary that the growth shall itself be syphilitic; in point of fact, gumma of the hypophysis is very rare. Simmons found among 1700 hypophyses which he examined microscopically only 9 with syphilitic changes. Of course, the gland may be secondarily involved from dural or bony syphilis. I make reference to this association of syphilis with hypophyseal disease because, while I know of no statistics to prove the suggestion, it is quite possible that the oculomotor palsies of various types are more frequent in association with pituitary body disease when the subject is also syphilitic, even if the gland itself is not luetic.

The non-surgical treatment of hypophyseal disease is concerned in largest measure with glandular feeding, and the advantage of glandular feeding when the stage of glandular insufficiency exists is well known. Moreover, this advantage is enhanced if extracts of glands other than the one primarily involved are employed, because the pituitary body malady is a polyglandular one.

A number of examples of restoration of vision and the fields of vision following organotherapy are on record and, in this country, notable instances have been reported by Timme, Elsberg, myself and other surgeons. In illustration of this method of therapeusis, I may summarize, briefly, three case histories, elsewhere reported in detail.

Case A. An unmarried white woman, aged 39, with tumor of the pituitary body, demonstrated by x-ray examinations, had complete bitemporal hemianopsia, ophthalmoscopic optic nerve atrophy (very pallid discs), left complete oculo-motor palsy, absolute blindness lasting twelve days in the right eye and six weeks in the left. Under the influence of large doses of thyroid extract, associated with inunctions of unguentum hydrargyrum, the vision of the right eye was completely restored and that of the left eye partly restored (6/9), and the hemianopsia, ocular muscle palsy (except that of the ciliary muscle) entirely disappeared. Constitutional syphilis was not demonstrated, either by the history or by any method of examination. During a period lasting from June 1st to October 3rd, the patient took 400 five-grain tablets of thyroid extract, and received 60 one-drachm inunctions of mercury; intermittently from August to October, iodid of potassium was exhibited (exact dosage not known). During three weeks prior to beginning the thyroid feeding the patient had taken iodid of potash, protiodid of mercury, and a few inunctions, but none of the remedies in large doses. For six months after the completion of the thyroid-mercury medication recorded above, the patient continued to take irregularly thyroid extract and to have mercury inunctions, but as she was not under my constant observation, I am unable to state accurately how much additional mercury and thyroid extract was administered. The final good result recorded was noted at the end of this period. The patient has not been seen for several years.

Case B. An unmarried white woman, aged 51, with tumor of the pituitary body, demonstrated by x-ray examinations, had complete bitemporal hemianopsia (preceded by hemianoptic scotomas and color hemianopsia), reduction of visual acuteness (O. D. 6/60, O. S. 4/100, lowest ebb), and ophthalmoscopic optic disc atrophy; no muscle palsies. During a period lasting from June 10, 1914, to December 10, 1914, she took 400 two and one-half grain tablets of thyroid extract, and 200 two and one-half grain tablets of pituitary body extract, and received 58 one-drachm inunctions of unguentum hydrargyrum. Vision of O. D. now 6/7.5, but vision of O. S. reduced from 6/12 at first examination to 4/100. Thyroid-pituitary body extract was continued, but no more mercury given. From July, 1914, to February, 1917, she consumed 2,100 tablets (2½ grains each) of thyroid extract and of pituitary body extract, because, although vision was practically restored nearly two

years before, if these medicines were discontinued, headache returned. No history of syphilis, and none was demonstrated by laboratory tests.

Case C. An unmarried woman, aged 18, with tumor of the pituitary body, not absolutely demonstrated by x-ray examination, in that the report was "sella ill-defined and cloudy," with periods of diplopia for at least a year, moderate choking of each disc (2.5 D.) and when examined complete blindness of the right eye (lasting one week), and vision of left eye reduced to counting fingers in the temporal field, the nasal field being entirely dark, but the temporal field for *form* intact, at the expiration of 40 days of active medication, during which time she took 200 grains of thyroid extract, and received 30 one-drachm inunctions of mercury, had vision restored, 6/10 each eye, 6/7.5 both eyes, the choked discs had disappeared, the surfaces of the discs being pale, and the visual fields normal. History and laboratory tests negative in so far as syphilis is concerned.

The question arises as to whether the mercury used in large doses in the treatment of the patients mentioned in the summarized case histories was a necessary adjunct and a large contributor to the excellent results and, if it was, how did it act advantageously, and why?

It may be argued that all of these patients may have been luetic in spite of negative examination. Certainly it must be admitted that all of them showed a somewhat remarkable tolerance to mercury; also a non-positive Wassermann does not exclude syphilis. And yet in all other counts they were free from the suspicion of specific taint, and in the original reports the cure was attributed, certainly in largest measure, to the thyroid-extract pituitary body feeding.

A second suggestion, which has come into prominence in recent years, especially since thyroid extract has achieved success in the treatment of certain types of keratitis and uveitis, is that insufficiency of glandular secretion inhibits the action of remedies which possess a so-called antiphlogistic, or, in a sense, specific influence. This being eliminated by organotherapy, the inhibition is removed and the remedy is free to exercise its curative activity. That more or less antagonism exists between the processes of mercuralization and inflammation, at one time maintained, and not, I think, altogether abandoned, is well known. Should this be true, it might be asserted that this constituted the basis of the good effect of the mercury therapeusis, save only that primary inflammation of the pituitary body, if it occurs at all, must be very unusual (Adami).

As organotherapy alone in hypopituitarism has often proved successful, it may be asserted that the action of mercury as a curative agent in this regard was negative, but it is difficult to believe that its influence was negligible, considering the lrage amounts of the drug which were exhibited.

Mercury undoubtedly stimulates in some particulars glandular activity—the salivary gland and the pancreas. Whether such influence is ever exercised on the endocrine glands I do not know. If it is, mercury and thyroid and pituitary body extract, simultaneously exhibited, may possibly develop a synergic action, each aiding the other in stimulating glandular secretion with advantage. It has, however, also been stated that mercury inhibits thyroid activity.

Whatever the explanation may be, it appears to be a clinical fact that in stages of glandular insufficiency the effectiveness of organotherapy is probably enhanced by simultaneous administration of mercury (preferably by inunctions), and the gland extracts, even though the presence of syphilis is not demonstrable by the usual methods.

It is probable that a combination of thyroid and pituitary gland extracts is more efficient than either of the extracts alone, and that this combination, associated with mercury is more effective than is an extract of one gland, even though given in conjunction with unguentum hydrargyrum.

The value of radium in the treatment of pituitary body lesions has unquestionably been demonstrated, applied both primarily and after operative procedures. Time, however, does not permit a discussion of this agent in this regard; also, it is not strictly germane to the present discussion.*

1705 Walnut Street.

* The paper was illustrated with a number of charts of the visual fields in pituitary body disorders, exhibiting the various types of hemianopsia and scotomas described in the text. I have quoted freely from other papers which I have published on this subject, especially: "Visual Phenomena in Pituitary Body Disease," Transactions of the College of Physicians of Philadelphia, 1915; "Pituitary Body Disease and the Results of Glandular Administration," Archives of Ophthalmology, Vol. XLVI, No. 2, 1917; and an address on "Pituitary Body Disorders in Syphilitic Subjects," read before the New York Academy of Medicine, December 21, 1920, which will be published in the May number of the Archives of Ophthalmology.

THE SURGICAL TREATMENT OF CERTAIN TYPES OF DYSPEPSIA.*

By STUART McGUIRE, M. D., Richmond, Va.

A generation ago the physician held undisputed sway in the treatment of digestive disturbances and the suggestion that dyspepsia could be cured by surgery, when medical, dietetic and hygienic measures had failed, would have been regarded as an absurdity. It is now accepted that indigestion when chronic or recurrent is almost invariably caused by organic changes in the stomach, duodenum, gall-bladder or appendix, and that relief from symptoms in such cases can only be permanently secured by the surgical correction of the anatomical lesion.

Every one suffers at times from indigestion due to imprudence in eating, but no one has constant, persistent, dyspepsia, lasting for months or years, unless it be due to some organic disease. A case of indigestion ought not to be subjected to surgery until it has been carefully and properly treated by medical measures without success, but every case that fails to secure relief in a reasonable time should be examined to see if there is not some indication for operative intervention.

In investigating a patient, it should be remembered that while the symptoms may be due to disease of the stomach itself, they may also be due to reflex irritation from disease of some other abdominal organ. It is a fact that in nine out of ten cases the lesion is not in the stomach but in some associated viscus such as the duodenum, gall-bladder or appendix. In other words, while the symptoms are gastric and the treatment surgical, the operation required is not necessarily on the stomach.

Obstruction of the pylorus may be organic, such as results from the cicatricial contraction of an ulcer, or spasmodic, such as results from reflex nervous irritation due to appendicitis, cholecystitis or duodenal ulcer. The first is mechanical and should be relieved by making a new exit for the stomach contents, the second is functional and should be relieved by diagnosticating and correcting the cause which produced it.

At one time it was thought that the operation of gastro-enterostomy was a panacea for all gastric disorders. It was found, however, that while in some cases it accomplished brilliant cures, in others it not only did not relieve but actually increased the patient's distress.

A gastro-enterostomy will cure the symptoms due to an organic obstruction of the pylorus because it relieves the condition by affording a new exit for the stomach contents. It will not cure but will aggravate the symptoms due to spasmodic obstruction because it overcomes the protective effort on the part of nature to prevent the passage of irritating gastric contents into the intestinal tract.

The most common operations for the relief of dyspepsia due to organic diseases of the stomach are partial gastrectomy, pyloroplasty and gastro-enterostomy.

Partial gastrectomy is the operation done for ulcer or carcinoma of the pyloric end of the stomach. It originated as a pylorectomy with anastomosis of the cut end of the duodenum into upper angle of the gastric incision; it was then changed by Billroth to complete closure of the stomach with a posterior gastro-jejunostomy; and, finally, it has been perfected by Mayo, who recently introduced the method known as the modified anterior Polya operation. This operation can be done with low mortality on suitable cases, and gives admirable results. Patients with ulcer of the pyloric end of the stomach are relieved of all symptoms and restored to complete health. Patients with cancer of the stomach have their lives prolonged, and in the 306 cases reported by the Mayo Clinic, over 37 per cent. of the patients have remained well at the end of a three-year period. This is a most satisfactory showing for the surgical relief of an otherwise hopeless condition, and even better results may be expected when cases are diagnosed earlier and referred to the surgeon more promptly.

Pyloroplasty is the operation done on the pylorus for the excision of an ulcer or the relief of obstruction due to non-malignant disease. The operation at first consisted of an incision through the wall of the pylorus in a line parallel with its long axis and the closure of the incision at right angle to the direction in which it was originally made, thus widening the pyloric opening and relieving the narrowing. This operation has been modified by Finney, Horsley and others, so as to make it

*Paper read at meeting of the Tri-State Medical Association of the Carolinas and Virginia, held in Spartanburg, S. C., February 16-17, 1921.

more effective and applicable to a larger number of cases. Pyloroplasty is an ideal operation both from an anatomical and physiological standpoint, but it is also ideal in the sense it can rarely be satisfactorily performed. In 72 per cent. of patients, according to Deaver, the ulcers are located so far from the pylorus that the method is not applicable, and in cases of long standing the walls of the pylorus are so thick and inelastic that the tissues cannot be approximated in the desired position without producing a deformity which interferes with the motility of the stomach, stitches often cut out when tension is made on them, and the suture line is insecure and there is danger of leakage.

Gastro-enterostomy is the operation most frequency done for benign obstruction of the pylorus and for duodenal ulcers. It consists of an anastomosis between the stomach and a loop of the jejunum, thus establishing a new opening through which the contents of the stomach can reach the intestinal tract. The effect of the operation on the stomach is both mechanical and chemical. Mechanically, it permits the gastric contents to pass readily into the intestines as the new opening between the stomach and jejunum relieves any obstruction that may have existed at the pylorus. Chemically, it lowers the acidity of the gastric contents, as the stoma also permits the alkaline secretions of the liver and pancreas to pass into the stomach. Thus, gastric dilatation and food stagnation are cured by drainage, and hyperacidity of the stomach is relieved by neutralization of the acid with the patient's own alkali.

How a simple gastro-enterostomy cures a duodenal ulcer is a theoretical question. It is a practical fact that it does cure. While gastric ulcers frequently lead to cancer, duodenal ulcers do not undergo malignant changes. There is, therefore, no reason to excise them unless they are causing hemorrhage. If this be the case and the ulcer is accessible it may be wise to destroy it with a cautery. Balfour noted the fact that a peptic ulcer which perforated always healed if the patient lived. An analogous condition can be created by burning through the bowel over the center of an ulcer with a pointed cautery and then suturing the opening and protecting the wound with a tag of mesentery or omentum. The objections offered to the operation of gastro-enterostomy are that sometimes food escapes too quickly from the stomach, causing bowel disturbances; that occasionally bile and pancreatic secretion enter the stomach in large quantities, causing nausea and vomiting, or the so-called vicious circle; and, finally, that in a few cases an ulcer develops in the jejunum at or near the anastomosis due to the irritation of a mucous surface which has no natural immunity to the action of gastric juices. This complication can be made infrequent by placing the opening at the bottom of the stomach so there will be no retention, and by using catgut instead of silk or linen so there will be no unabsorbed sutures.

While the operation of gastro-enterostomy requires explanation and apology, still in properly selected cases it gives good results and will continue to be frequently employed by the best surgeons the world over until some better method is devised. The operation has been much abused: by its friends who in their enthusiasm perform it on unsuitable cases and by its critics who offer no satisfactory substitute for it. Say what you please, it has given relief to many patients and will be the stepping stone to future progress.

The most frequent operations for the relief of dyspspsia not due to organic diseases of the stomach are those done for appendicitis, cholecystitis, duodenal ulcer or other diseases which interfere with digestion by causing a spasm of the pylorus. Pylorospasm is not a disease but a symptom. To endeavor to circumvent it by a gastro-enterostomy will do harm and not good. The source of the reflex irritation which causes the spasm must be found and relieved. If it be cholecystitis, the gall-bladder should be removed; if it be pancreatitis, the gall-bladder should be drained either externally by a cholecystostomy, or internally by a cholecystenterostomy; if it be appendicitis, then the appendix shocld be taken out, but the surgeon should be sure that no other diseased condition is left in.

The unsatisfactory results which sometimes follow operations for the cure of dyspepsia may be classed under four heads:

1. *Failure of the diagnostician to recognize the true cause of the symptoms*: It is a generally accepted truth that successful treatment must be based on a correct diagnosis, and in

no line of work does this apply more forcibly than in the surgical cure of dyspepsia. Every possible means should be employed before operation to determine the pathological condition that causes the symptoms, but when the abdomen is opened, a thorough and complete examination should be made of all the various organs. The obvious cause is not always the real cause of indigestion. A provisional diagnosis of gall-bladder disease may apparently be confirmed by finding the presence of gall-stones and yet the actual trouble may be really in the appendix. Here the removal of the gall-stones will do little good unless the appendix is also taken out.

A more frequent cause of failure is to remove a chronically inflamed appendix and leave other diseased conditions uncorrected. This is especially liable to occur when an appendectomy is done through a small split muscle incision. Except in children and in acute cases of appendicitis in adults, an appendectomy should be done through a mid right rectus incision which gives sufficient room to completely explore the abdomen and which, by extension up or down, will permit the correction of any diseased condition found in the pelvis or upper abdominal region.

2. *Failure of the operator to apply the proper technique to meet the indications*: The pathological changes found in the abdomen vary so greatly that great wisdom is often necessary to deal with them properly. A standard method to meet different indications has not been adopted and much is left to the theoretical views or the practical experience of the individual operator. Errors of judgment are frequently made by two classes of surgeons and many patients are made worse and not better by unnecessary or illogical abdominal operations. These surgeons are those who are untrained and those who, although experienced, are prejudiced for or against certain procedures. In former days, untrained surgeons were barred from work by high mortality. The modern technique, which is easily acquired, has removed this obstacle and they now operate without loss of life but frequently without relief of symptoms. Well known and experienced surgeons are sometimes so biased by their personal views that they do a pyloroplasty when a gastro-enterostomy would be better, or drain a gall-bladder which should be removed, or remove a gall-bladder which should be drained. All this will be corrected in time. Untrained surgeons will learn by experience or be restricted by law, and dogmatic surgeons, prejudiced by the part they have taken in evolving certain operations, will die and be replaced by men with open minds, who will impartially weigh all the evidence and adopt the true and discard the false teachings of the past.

3. *Failure of surgery up to the present time to develop a satisfactory operation to correct certain conditions:* Surgery of the stomach and associated viscera is comparatively new. Much has been done but much remains to be accomplished. Only a generation ago, the causative relation of appendicitis and other diseases to dyspepsia was not recognized, Murphy's button was generally employed as the accepted method of forming an anastomosis, and the x-ray had not come into use as a diagnostic agent. So, a generation hence, many of the views and methods of today will doubtless be obsolete and will be replaced by theories and practices which will give better results. Many of the operations now employed by the best surgeons will be abandoned and new operations will be devised to correct defects which we already recognize but do not know how to overcome, or to accomplish results which we now desire but do not know how to secure.

4. *Failure of the physician to properly direct and supervise the patient's post-hospital treatment*: A surgical operation performed on a patient suffering from chronic or recurrent dyspepsia is but the first step in his cure. The operation simply removes the cause of his symptoms and the case must be carefully and judiciously treated for a long time before he can be said to be well. Frequently the difference between success and failure depends on the post-operative and post-hospital management.

After a partial gastrectomy, the size of the stomach is reduced and food has to be given in smaller quantities and at more frequent intervals than normally. If before operation there is complete achlorhydria, there is no hope that acid production will ever be re-established and its lack must be supplied artificially by medication.

After a gastro-enterostomy, the stomach empties more rapidly and frequently contains

bile and pancreatic fluid which enter through the anastomotic opening. This requires a careful regulation of the diet and occasionally the use of gastric lavage until the stomach acquires a tolerance.

After an operation on the duodenum, gall-bladder or appendix, to remove the cause of pylorospasm, the patient must be systematically treated until the hypersensitiveness of the pyloric muscle is relieved and the spasm habit is overcome.

The post-operative treatment of patients is carried out during their convalescence at the hospital under the supervision of the surgeon. The post-hospital treatment is continued after their return home under the direction of their family physicians.

While at the hospital, the patient should be impressed with the fact that he is not well because his wound has healed and that it will be necessary for him to be prudent until sufficient time elapses for his organs to accommodate themselves to new conditions and for his weight, strength and nervous equilibrium to be restored. On his return home, he should be directed to place his case in the hands of his family doctor who should be fully informed as to the nature of the operation that had been done and given suggestions if any special indication existed for treatment.

Only by cordial co-operation between surgeon and physician can the best results be secured for these patients.

A STUDY OF A CONSECUTIVE SERIES OF NEPHRECTOMIES.

By J. SHELTON HORSLEY, M. D., Richmond, Va.

Recent advances in urological technic have made it possible to determine the function of each kidney with considerable accuracy. The introduction of dyes for the study of renal function and the greater accuracy of blood chemistry have resulted in marked advances in the clinical diagnosis of renal disease.

Excision of a kidney is an operation that should not be lightly undertaken. An appendix may be removed, or a gall bladder extirpated, without any bad effect, even if these organs are comparatively normal. The removal of a kidney, however, is either helpful or deleterious because in the removal of a healthy kidney there is much greater strain upon the remaining kidney than in removing a diseased kidney. Where only one kidney is affected and the disease comes on gradually, as a tumor or pyonephrosis, the burden of renal function is gradually thrown upon the healthy kidney so that it has already hypertrophied and undergone changes to enable it to take up the normal work of both kidneys. Removing a diseased kidney under these conditions throws but little or no extra burden upon the remaining healthy kidney.

It has been determined by Martin Fischer and others that, if both kidneys are perfect in structure and function, only about 25% of the kidney capacity, which is about half of one kidney, is essential to life, provided the additional work is not too suddenly assumed. When, however, one kidney is diseased, the remaining one is probably not physiologically perfect. Animals in which both kidneys are removed do not develop before death many of the classical symptoms that are attributed to diseases of the kidney. They never, for instance, become edematous, though edema is commonly associated with certain types of nephritis. This edema is not due to the primary disease of the kidney but to some toxic influence outside which involves the kidney as one of the organs or tissues affected.

Except in some unusual and grave emergency a nephrectomy should never be done until the patient has been studied carefully by a urologist in conjunction with a well-trained clinical pathologist and roentgenologist. The patient should always be cystoscoped and one or both of the ureters catheterized. Phenolsulphonephthalein is injected into the muscle or vein and the time of its appearance from each side is noted, together with the amount of excretion. The appearance of the bladder is often significant and in most cases of tuberculosis gives very positive evidence, even before the ureters are catheterized. It is best to have roentgenograms and pyelograms made. The first pictures can be taken before the pyelogram and it is more satisfactory to observe the injection of the fluid for the pyelogram under the fluoroscope. This, of course, should be done by a competent roentgenologist. The blood should be examined, particularly for nitrogen blood urea. The phenolsulphonephthalein test is not always accurate but, if the patient's condition appears fairly normal and the nitrogen blood urea is not more than seventeen or eighteen m.gr. per 100 c.c., it may be assumed that the urinary excretion is satisfactory.

A nephrectomy, then, should not be done until the urologist, the clinical pathologist, and the roentgenologist have passed upon the case, unless in some grave emergency where the risk of delay would be too great. If these examinations are carefully carried out and the operation is properly performed, the mortality from nephrectomy will not be any greater than the mortality from hysterectomy.

As for the type of operation, I use either the lumbar incision of Mayo, which gives a very satisfactory exposure in kidneys that are not too large, or the abdominal incision along the outer border of the rectus muscle. The incision of W. J. Mayo begins just above the upper border of the 12th rib about 2½ inches from the spine and goes downward until about one inch above the crest of the ilium. The ilio-hypogastric and the ilio-inguinal nerves should be observed and protected from trauma during the operation and from sutures during the closure of the wound. It is highly important to have ample exposure over the rib. For this reason the inferior attachments of the 12th rib should be well loosened. Dividing the fascia and muscle posterior to the incision will free the rib markedly. If this incision is made too close to the rib, the pleura may be opened but this is of no great consequence as the wound can be whipped over with catgut and a wet piece of gauze packed over the wounded pleura, held with a catgut suture, and withdrawn after four or five days. The fear of wounding the pleura has often handicapped many an operation by giving insufficient exposure. After opening the fatty capsule of the kidney posteriorly, the kidney is mobilized by the insertion of the hand. If the kidney is high up, the ureter is hooked up with the finger and brought into the lower part of the wound. If the operation is for infection by pyogenic or tubercular bacteria, the ureter is injected with about 2 c.c. of pure carbolic acid from a hypodermic syringe. The carbolic is worked up and down so that the upper portion of the ureter, as well as the lower, may be affected by the carbolic. The ureter is clamped and ligated below the clamp with catgut. It is again injected with carbolic between the clamp and the ligature and below the ligature and divided. In this way the carbolic is thoroughly in contact with the interior of the

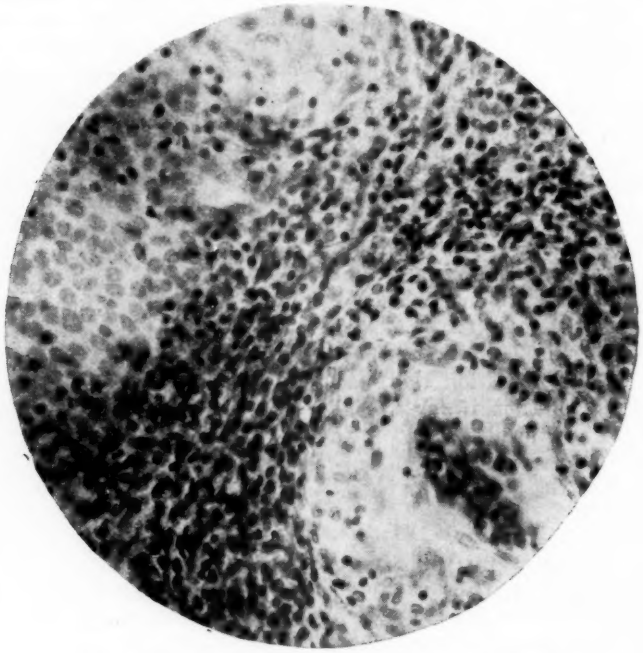

Fig. 1.—Photomicrograph of a section of a tubercular kidney. Note the giant cell in the lower right hand corner, also epithelioid cells and leukocytic infiltration. 325 diameters.

ureter before the ureter is opened. This enables the surgeon to turn up the kidney and, while the 12th rib is strongly retracted, the fat can be gently stripped from the pedicle with dry gauze.

The pedicle is clamped with three forceps and divided between the middle forceps and the forceps next the kidney, and the kidney is removed. The pedicle is tied with stout catgut, which is applied under the nose of the forceps farthest from the kidney and the ligature is tightened down as this forceps is removed. A second ligature of catgut in a needle transfixes the pedicle between this ligature and the remaining forceps and this ligature is tied down as the last forceps is removed. In this way there are two ligatures of catgut at a short distance from each other. Large vessels should always have two ligatures applied so that the ligature nearest the heart takes up the pressure from the arterial current and permits the tissue between this ligature and the distal one to heal more readily because it is not subjected to the constant pounding of the arterial current. Sometimes it is wise to approach the pedicle from above and remove the ureter last. Occasionally, too, where there is great need of speed, the pedicle clamps may be left on and the wound sutured with the handles of the clamps at the upper portion of the wound. The clamps are removed after 48 hours. In urgent cases where the pedicle is difficult of access, this saves about five to ten minutes of time in the operation though, if the pedicle can be tied securely, it is somewhat more comfortable for the patient during the first few days after operation.

Fig. 3.—Section of the kidney shown in Fig. 2. Note the large cavities which contained pus and the stone, which is embedded in the pelvis of the kidney. Pyonephrotic kidneys often contain relatively less healthy kidney substance than tubercular kidneys.

Fig. 2.—Drawing of the external appearance of a pyonephrotic kidney with stone.

When the kidney is large, and especially if there is a malignant growth, the abdominal incision is made. This is ample and goes along the outer border of the rectus muscle. The peritoneal cavity is opened and the anterior surface of the kidney inspected. Sometimes the peritoneum can be stripped up so as to make the operation practically extra-peritoneal. If this cannot be done readily there is no hesitation about incising the peritoneum posteriorly. The colon should be retracted to

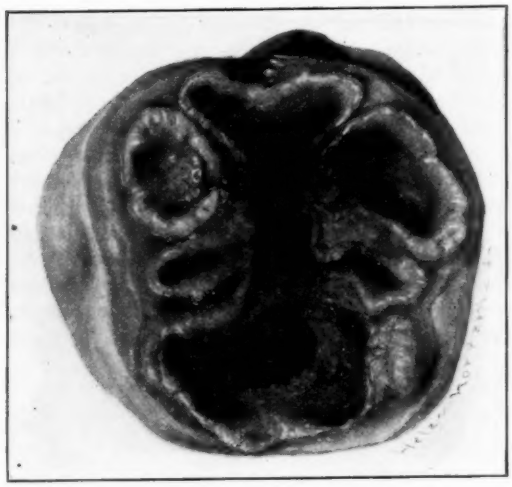

Fig. 4.—Section of a pyonephrotic kidney without stone.

Fig. 5.—A drawing of a hypernephroma, or mesothelioma. Note the light colored material, the distinct trabeculae and the apparent encapsulation.

the inner side and an incision is made along the outer attachment of its mesentery. The intestines are well packed off with moist gauze and the pedicle of the kidney is exposed and doubly ligated. With malignant tumors, particularly a hypernephroma, the growth often projects into the renal vein and, if the tumor is manipulated too much, it may force the particles of the tumor into the vein before the vein has been clamped. Sometimes, on account of the size of the tumor, however, it may

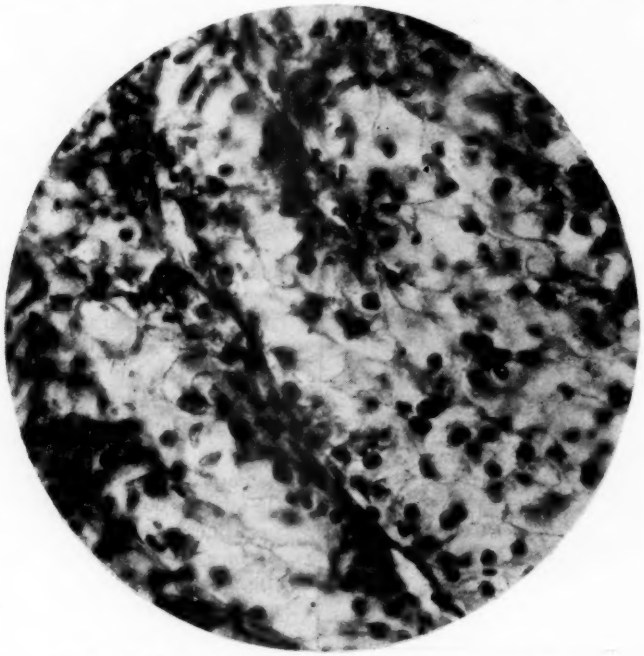

Fig. 6.—Photomicrograph of the hypernephroma shown in Fig. 5. Note the clear-cut light cells, many of which have apparently no nuclei. 325 diameters.

be necessary to mobilize it first. The ureter is treated as in a lumbar nephrectomy.

If the ureter is thoroughly injected with carbolic there is no occasion for making an extensive dissection to remove it. If the ureter is greatly involved, as in tuberculosis, it is not probable that the bladder is free from disease. Removing the kidney abolishes the function of the ureter and gives it complete rest. The square surface of the internal part of the ureter is exceedingly small as compared with the square surface of the bladder. If, then, we leave an affected bladder, which has to function, it seems useless to prolong the operation to remove a ureter which can be disinfected on its mucous surface and put absolutely at rest by removing the kidney.

In old infections of the kidney with dense adhesions, the capsule may be split, stripped to the pelvis and again divided. The kidney is thus easily mobilized and removed subcapsularly.

The cases herewith reported are sixteen nephrectomies, being all that have been done at St. Elizabeth's Hospital since it was opened in February, 1912, to the present time. In all of these cases a competent urologist has examined the patient. During the last year, my associate, Dr. A. I. Dodson, who does the urological work at St. Elizabeth's, has examined all the patients, and within the past year seven of the total group of sixteen nephrectomies have been done. Of these sixteen nephrectomies, all have made a satisfactory operative recovery except one who died. This patient was 70 years of age, rather stout, and had a stone in the right kidney complicated with pyelitis and nephritis with small cysts in this kidney. The right kidney function, as determined by the usual methods, was almost nil while the left was about normal for his age. This patient contracted bronchial pneumonia and died on the eighth day after operation.

Fig. 7.—Adenocarcinoma of a double kidney. This was removed from the right side and the upper portion of the photograph shows one kidney with a distinct ureter which blended with a lower kidney having also a distinct ureter. The lower kidney was the site of the tumor. The tumor was a very large one, as may be judged by the fact that the upper kidney was about normal in size for a single kidney.

Five nephrectomies were for tuberculosis of the kidney and Dr. Dodson will report upon this disease more in detail in a later communication. Several of these cases were poor risks from a general standpoint, but in each instance they showed that the remaining kidney was apparently normal in function and all of the patients made a satisfactory immediate operative recovery. (Fig. 1.) Three nephrectomies, Figs. 2, 3 and 4, were for pyonephrosis; in two of these there were also stones. Three of the nephrectomies were done for stone in the kidney in which the kidney function was very low or there was infection around the stone, though not sufficiently marked to be termed a pyonephrosis. One patient had an acute hydronephrosis with nephritis and intense pain. The patient was gravely shocked and was operated upon in an emergency, though the urological study had been made a few months before. In one patient there was a cortical pyogenic abscess that was apparently hematogenous in origin and did not communicate with the pelvis of the kidney. One patient had a cystic kidney that had been operated upon elsewhere and the cyst removed and the kidney drained. The patient continued having pain and urological examination demonstrated that the kidney was functionless. Nephrectomy showed that the kidney was largely a mass of scar tissue with a few small cysts. It was removed with considerable difficulty. The patient developed pneumonia but recovered and has been greatly improved since the operation.

In one case there was a hypernephroma.

(Figs. 5 and 6.) Metastases from a hypernephroma are very common, much more common than is usually believed. This patient made a satisfactory operative recovery but a few months later developed a metastasis in the lower jaw bone and died ten months afterwards. The illustrations show the histologic appearance of this hypernephroma, which is typical. This is a very interesting tumor. Its name indicates that it comes from the adrenal gland though Wilson, of the Mayo Clinic, has satisfactorily proved that it does not. The growth occurs as frequently in the lower pole of the kidney as in the upper pole and its structure is unlike tumors of the adrenal gland. It should be called a nephroma or a mesothelioma. It doubtless springs from nephrogenic matrices carried in by the mesonephros, which is the embryologic antecedent of the kidney. The adrenal gland has a very different embryologic origin from the kidney. It is probably best to treat these tumors with intensive roentgen therapy in the hands of a competent roentgenologist for a few weeks after operation.

One of this series of cases was a large adenocarcinoma of the kidney. The tumor was very low down for a kidney tumor. It was removed by the abdominal route and the tumor was found to spring from the lower portion of a double kidney on the right side. These two ureters are well shown in the illustration and were demonstrated by Dr. Dodson before the operation. On the extreme edge of the liver over the gall bladder there was a small growth which appeared to be possibly a metastasis. The patient's remaining kidney, however, had a slight degree of nephritis and it was felt best not to prolong the operation. There was no evidence of any metastasis elsewhere and as the patient had very relaxed abdominal walls, her physician was advised to keep a careful watch over her and, if the lesion on the liver grew, the patient could return subsequently for further operation. On section, this growth showed a few yellow places somewhat like a

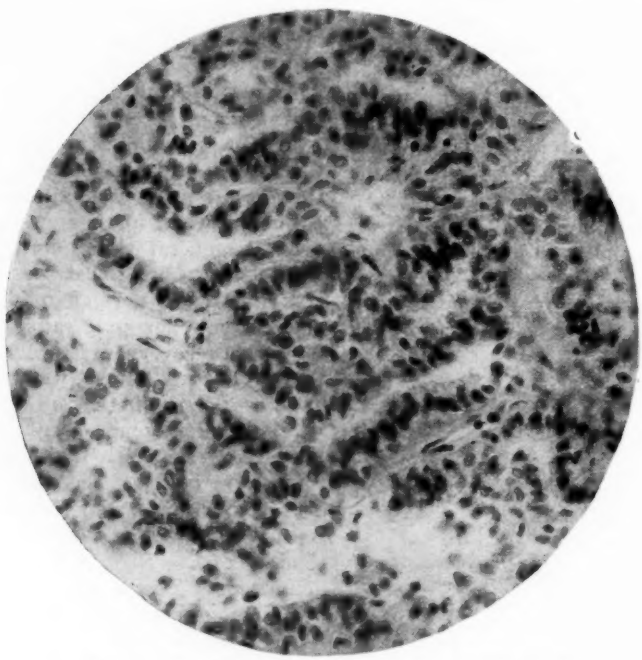

Fig. 8.—Photomicrograph of adenocarcinoma of the kidney shown in Fig. 7. The cells apparently sprang from the tubules and are reproducing with some accuracy the tubules of the kidney. In certain places the cells are fairly well differentiated. There are no mitotic figures but the nuclei vary greatly in shape and position. This tumor is not so malignant as the hypernephroma.

gross section from a hypernephroma, but most of it was soft, fungus-like material that seemed to be largely broken down. (Figs. 7 and 8.) A microscopic section showed an adenocarcinoma with the cells rather well differentiated and making fairly satisfactory efforts in some places to reproduce renal tubules. This is not a very common form of kidney tumor and is less malignant than a hypernephroma.

Summarizing these cases, there was a total of sixteen in a consecutive series with one death from pneumonia in a patient 70 years of age. One of the patients with tuberculosis of the kidney is still in the hospital, though making a satisfactory recovery. The patient with the large adenocarcinoma is reported by her physician on March 18th, 1921, as doing well. One of the patients that was operated upon for tuberculosis of the kidney is complaining of slight bladder trouble but is much better than before the operation and has gained considerably in weight. The hypernephroma patient died from metastasis ten months after the operation. The others are in good condition and seem practically in perfect health.

ACUTE OBSTRUCTIVE LARYNGITIS IN CHILDREN.*

By GEO. J. TOMPKINS, M. D., Lynchburg, Va.

The usual classification of acute inflammatory conditions in the larynx of children, attended by restriction of its caliber and impeded or obstructed respiration, is Acute Catarrhal Laryngitis (or Spasmodic Croup); Traumatic Laryngitis; and Laryngeal Diphtheria (or Membranous Croup). The purpose of this paper is to at least raise the question if this classification does actually include all of the acute inflammations of the child's larynx seen in ordinary practice, by which a correct clinical diagnosis can be made, on which depends a rational, curative and, therefore, life-saving treatment. I think it does not and, so believing, desire to state my reasons, supported by experience in bedside practice, which however limited, may warrant further investigation and result in progress.

After the discovery of the Klebs-Löffler bacillus as the direct cause of diphtheria, the contention arose over the claim that there are two kinds of membranous croup, viz., the diphtheritic and the non-diphtheritic, and still today a division of opinion exists with the weight of authority in favor of regarding all membranous croup as true diphtheria. It is a discussion of this particular question, and not of the traumatic and catarrhal inflammations involving the larynx, that is here intended.

Perhaps it would be just as well to discard the belief that obstruction in acute infections of the larynx is always due to the presence of false membrane; why should we, when a child develops dyspnea in these conditions, jump to the conclusion that the larynx is being blocked by membranous exudate? We are not so hasty in the case of an adult, because inspection shows us that it may also be due to swelling and tumefaction of the soft tissues. If we could as readily see into the child's larynx, we would, no doubt, at times find the same cause and not be so ready with a diagnosis of membranous laryngitis, but call it something else of a more definite nature that would lead to a more certain remedy. Of course, I believe we should ever bear in mind the probability of an infection of the larynx in infancy and childhood with signs of obstruction, being caused by the Klebs-Löffler bacillus and be prompt to administer antitoxin, but go further and bear in mind at the same time the possibility of some other organism being the cause, especially the streptococcus, and be prepared to fight it as a separate or combined enemy.

During some twenty years' practice in laryngology, it has been my experience from year to year to see through the fall and winter months a few cases of obstructive laryngitis, in children ranging in age from one to seven years. The call usually comes through the family physician who generally outlines a history about like this: The child, perhaps of former robust health, was taken some hours previously by what the parents presumed was an attack of ordinary spasmodic croup, hoarseness, characteristic cough and stridulous breathing, but instead of the attack passing off in an hour or two, like croup, the child had begun to show signs of increasing prostration, with quickening pulse, rising temperature, anxious expression and grave dyspnea. Perhaps beginning cyanosis has increased the alarm of both the parents and physician and the latter considers intubation urgent. (When the curtain rises upon such a scene it has al-

*Read at the first meeting of the Virginia Society of Oto-Laryngology and Ophthalmology, in Richmond, February 3, 1921.

ways made me feel that the stage is set for one of the worst tragedies that it is my misfortune to ever witness. Former experience has taught that death stalks nigh and often, so often, yes, too often! The end will be another mother, broken-hearted, weeping for her child which is not, and refuses to be comforted.)

Following the text-book teaching, it has been my custom to regard these cases as most virulent types of diphtheria that demand the prompt administration of large doses of antitoxin, by the quickest route through which it can be conveyed into the system. I have long since abandoned the sub-cutaneous injection and insert the needle either deeply into the infra-scapular muscles, or gluteal region, and sometimes, by preference, directly into a vein. My rule is to intube early enough, when possible, to prevent loss of strength from labored breathing.

Time after time I have seen children who had received large doses of antitoxin (from twenty to one hundred thousand units) die from toxemia and heart exhaustion within twenty-four hours of the onset of their disease even though their breathing had been maintained free by the tube. The observation that these children linger sometimes for several days, with the severity of their symptoms steadily increasing and apparently uninfluenced by the liberal dosage of antitoxin given in the quickest way to obtain maximum effect, and do not die before sufficient time has elapsed for it to have exerted its specific action in combating the disease, very naturally has raised a question in my mind as to the correctness of the diagnosis and the probability of error in assuming that the Klebs-Löffler bacillus is the invading organism.

The diagnosis is not invariably based on the cardinal symptoms of diphtheria—that is, the presence of characteristic false membrane and the positive laboratory findings. Inspection of the fauces frequently reveals nothing and a view of the larynx in young children is out of the question. There is no time to be lost in waiting for a culture. So blindly we proceed with the antitoxin, and blindly we isolate the patient and quarantine the home and thus begin what subsequent events too often prove a losing fight.

We have also observed that laryngeal diphtheria is considered less contagious, or infectious, than other types of the disease. I have never seen a second case of diphtheria develop in any child following exposure to one of those cases in which the larynx alone was involved and I have frequently seen other children directly exposed that were not then nor later protected by an immunizing injection of antitoxin. I once saw two little brothers come down with the disease about the same time, only a few hours apart, and the two were given their first doses of antitoxin the same morning, intubed at the same time and quarantined in the same room. There were no other children in that family. In another instance I saw a child showing typical faucial diphtheria, with laryngeal complication, communicate the disease to its father who helped to nurse it. But not once have I seen another child contract diphtheria from one of these fulmination cases of acute obstructive laryngitis that we are taught to call diphtheria. This point, I believe, has its significance.

Attention is attracted by the oft repeated and authoritative statement that 12,000 to 15,000 children die annually in the United States from diphtheria; to which is added the frequent comment, they could have been saved by the timely use of antitoxin. It is assumed that these figures are compiled from the certificates of death recorded in each of the States, giving diphtheria as the cause. It follows then that they include the several deaths that I have so reported and also those that each of you, gentlemen, may have reported from the same cause. I am sure none of my cases has ever died without having had antitoxin, but all of them that died have died in spite of antitoxin in large doses and in some instances when it had been given within twenty-four hours from the onset. Perhaps some or all of you who see these cases have had a similar experience.

What is the explanation of this failure? Why does antitoxin not have prompt effect and produce the same rapid disappearance of symptoms that follows its use in other types of the disease? As a specific, antitoxin for diphtheria has no counterpart in therapeutics; not even in quinine for malaria nor mercury for syphilis; it is the one remedy par excellence, provided it is given early; its advent constitutes one of the most brilliant chapters in modern medicine. And yet, I have witnessed

such dire failure to get results in these so-called cases of laryngeal diphtheria, notwithstanding early and large dosage, that I am persuaded that death results, not from full and timely use nor from inferior and impotent serum, but from an infection, not due to the Klebs-Löffler bacillus, and one over which diphtheria antitoxin exerts no control. In my judgment, it is an error, in the absence of positive proof, to regard as diphtheria all cases of acute obstructive laryngitis in children with rapid prostration and severe toxemia, and then rely upon antitoxin alone to save them; it will not do it. Until we recognize this as true and have regard for the presence of other deadly organisms as etiological factors, either in combination or alone, we will continue to lose many of our patients and the statistical figures will remain high, notwithstanding the assertion they can be reduced by the unfailing use of antitoxin.

We know the streptococcus is sometimes the responsible agent in acute inflammatory affections involving other portions of the respiratory tract and we have no reason to believe the larynx possesses any immunity and is not also invaded by it, but reference to it in text books on children is so slight that it fails to enlighten. It is frequently mentioned as a cause of tonsillitis which may be confused with diphtheria. Kerley says, "Both the streptococcus and staphylococcus will produce a membrane identical with those produced by the Klebs-Löffler bacillus and may be differentiated only through cultural examination." He precedes that statement with the remark: "The man is yet to be born who can say, after inspection alone, that a given membrane is not due to the Klebs-Löffler bacillus." I take this to mean also that the reverse is true and without a culture we cannot know with which organism we are dealing. The failure of antitoxin as a therapeutic test should convince us that it is not the Klebs-Löffler.

Such repeated failure resulting in the death of little ones has prompted me to independent thinking and an effort to seek and find the remedy. The success attained so far, while signal, is limited to too few cases to be accepted as in any way conclusive, but with the hope that my experience, though small, may help others to save life, I offer it, regardless of whatever theories to which it may run counter and with indifference to the taunt of empiricism. I believe we have been confusing streptococcic infections of the larynx with diphtheria and that the two occur in children separately as distinct clinical entities and sometimes in combination.

The following cases, seen during the fall months just passed, are given to illustrate in part the basis of these observations.

Case I: (Seen by the courtesy of Dr. Sam Wilson.) Girl, age 13 months, showing signs of indisposition throughout the day, was put to bed fretful and unwell. By 3 a. m. condition was so much worse the doctor was called. He found patient showing marked prostration, with rising temperature, rapid pulse and stridulous breathing. No visible membrane in the throat. He began the administration of antitoxin and gave 90,000 units that morning. On account of beginning cyanosis, called me at 10 a. m. to intubate. The tube was readily placed and completely relieved dyspnea. No abatement was observed in the progress of the disease and the child died the afternoon of the following day, some thirty-six hours after receiving antitoxin.

Case II: (Courtesy of Dr. Wilson.) Girl, age 3 years, showed typical faucial diphtheria with visible membrane and laryngeal complication, indicated by hoarseness, stridor and characteristic cough. Antitoxin was given promptly and dosage increased to 110,000 units. The question of intubation was raised on account of difficult breathing, but not deemed necessary. In twenty-four hours improvement was apparent and continued to complete and prompt recovery.

Case III: Girl, age 7 years, of delicate constitution, had been under treatment for several days for digestive disturbance. I was called one Tuesday afternoon and found typical pharyngeal diphtheria with extensive false membrane and severe laryngeal complication. This had been recognized and 25,000 units of antitoxin already given. I intubed immediately to relieve most distressing dyspnea with cyanosis and injected an additional 10,000 units. Two days later, on Thursday evening, the false membrane had disappeared from the pharynx, giving impression that the infection was controlled, but prostration continued to increase and the child died the next morning from exhaustion and dilated heart.

Case IV: (Courtesy of Dr. Sam Wilson.)

Boy, age 14 months, became indisposed on Thursday and was seen the next day by a physician who prescribed for a sore throat. Saturday the child appeared so well as seemingly to have recovered, but at 12 o'clock that night was taken with a severe croup that continued to grow worse. Dr. Wilson was called at 6:30 Sunday morning, made a diagnosis of laryngeal diphtheria and began use of antitoxin. He gave up to 90,000 units. Called me at 9 o'clock to intube. The patient was then cyanotic and breathing with great difficulty, from which the tube afforded complete relief and color returned to normal, but prostration, temperature and pulse rate steadily increased and Monday morning condition appeared hopeless. At my suggestion a mixed stock vaccine, one-half c.c. streptococci and staphyloccoci combined, was injected. In twelve hours improvement was marked and a second dose of the same given. Tuesday morning, the progress of recovery had been so rapid the child was considered as out of danger and the end of the fifth day the tube was removed and case dismissed. This experience impressed us as most unusual as neither of us had before seen a case so ill as this recover.

Case V: (Courtesy of Dr. Sam Wilson.) Girl, age 16 months. Dr. Wilson had treated this child for a persistent coryza which he had pronounced cured three days previously, when at 3 o'clock one morning the child was awakened with a sudden and violent croup that responded to no home remedies. Dr. Wilson was called by 7 o'clock and found severe prostration, rapid pulse, temperature 104°, and supra- and infra-clavicular spaces receding with each labored inspiration. Sixty thousand units of antitoxin were given by 12 o'clock noon. At 4 p. m. dyspnea had increased with beginning cyanosis and one c.c. streptococcus vaccine combined was injected at 5:30 p. m. I was called to intube that evening. It afforded prompt relief of dyspnea and the following morning a second dose of vaccine, one-half c.c., was given. Rapid improvement followed and the child made a good recovery.

Sherman's Vaccine No. 10 was used in these cases. Its potency was especially recommended to me by Dr. W. S. Ferguson, of Lynchburg, Va.

Discussion.

Dr. C. S. Dodd, Petersburg:—Laryngeal cases are interesting to me. We have seen several of these patients recently and recall three whose throats were absolutely negative and yet with every symptom of obstruction. Examination of the larynx showed diphtheritic membrane. In one case there was marked depression but examination of the pharynx and larynx showed nothing. The bronchoscope was used and membrane found on trachea proved to be positive. Twenty thousand units of antitoxin were given twice and patient recovered. In one case, we used antitoxin and general treatment but still lost patient.

Dr. J. R. Gorman, Lynchburg:—In connection with the large doses of antitoxin, I recently read an article in the Journal of the American Medical Association, by Park, a member of the staff of the Willard Parker Hospital and one of the best informed men in this line of work in New York City. In a table in this paper, he shows that the dosage he gives in late, severe cases is 20,000 to 25,000 units of antitoxin, subcutaneously, and larger, depending on the patient. If used intravenously, he reduces this dose to one-half. In early mild cases, he gives from 1,500 to 3,000 units, the larger dosage being given subcutaneously, the smaller intravenously. In severe, late cases, I use 10,000 to 15,000 units intravenously.

Dr. Tompkins, closing the discussion:—With reference to the dosage of antitoxin, the large doses to which I referred in my paper were given by another doctor. The largest I have given is 35,000 units, and less than that when given intravenously.

ELEPHANTIASIS AND THE KONDOLEON OPERATION*

By THOMAS M. GREEN, M. D., F. A. C. S., Wilmington, N. C.

Elephantiasis and elephantoid conditions are brought about by the mechanical obstruction of the lymphatics or veins of the dependent part added to which is associated the presence of micro-organisms, whether it be a filaria-nocturna or the streptococci. In certain tropical countries the hypertrophy and fibromatosis of the hypoderm is brought about, no doubt, most frequently by the filaria, but in the Gulf and South Atlantic States we find the streptococci the exciting cause. According to Matas[1], the histopathological elements necessary to complete the picture of elephantiasis are:—(1) a mechanical obstruction or blockade of the veins and lymphatics of the region, usually an obliterative thrombo-phlebitis, lymphangitis or adenitis; (2) hyperplasia of the collagenous connective tissue of the hypoderm; (3) gradual disappearance of the elastic fibers of the skin; (4) the existence of a coagulable dropsy or hard lymph edema; and (5) a chronic reticular lymphangitis caused by the

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secondary and repeated invasion of pathological micro-organisms usually of the streptococcal type. With this viewpoint of its pathology we can lay aside all of the old ideas of tropical types, streptococcal type, etc.

This better understanding of its pathology has led us more nearly than ever to the prospects of curing these unfortunates through the medium of an operation, which has been credited to Kondoleon[2] of Athens, Greece, who first published his method in 1912. The oldest surgical treatment suggested for elephantiasis was that proposed by Carnochan in 1851, which consisted in the ligation of the main artery of the limb, the femoral or external iliac with a view of diminishing the edema. Next came the method of excising wedge-shaped areas by Mikulicz, Von Eiselsberg, Kaposi and others, none of which were, however, satisfactory. The idea of establishing a lymphatic communication between the disease and normal area seems not to have been original with Kondoleon, for in 1908 we find Sampson Handley[3] published his method known as "Lymphangioplasty," which consisted of passing long threads from the diseased area to healthy areas with the hope and expectation of establishing new lymphatic channels along the lines of these silk or linen threads. This has been practiced much throughout the civilized world, not only for

Fig. 1.—Rosenow's case before operation.

elephantiasis, but for other conditions, such as the drainage of internal hydrocephalus suggested by Sharpe[4], and many of the elephantoid conditions. However, Maddon, Ibraham and Ferguson[5], of the Egyptian Government School of Medicine at Cairo, showed very conclusively by their experiment that the force

of gravity, as well as the fibrous constriction forming about these newly formed lymphatic tubes, defeated their object and ultimately caused them to become fibrous bands. Finally, Handley[6] himself concludes that his procedure was not applicable to elephantiasis in his Hunterian Lecture on the Surgery of the Lymphatic System.

Lanz[7], in 1906, attempted to establish drainage from the edematous area to healthy tissue by a long incision through the skin and fascia lata (which acts as a shelf between the superficial and deep lymphatics) by planting pedunculated strips of this fascia lata into trephined openings in the femur. In addition, many smaller openings were made in the fascia lata. Oppel[8] and Rosenow[9] also contributed to this idea of draining by planting flaps of the fascia lata into the deep muscles and extended their operation to the lower limb as well as to the thigh.

Fig. 2.—Rosenow's case after operation.

Evolving his ideas then evidently from those whose efforts had preceded his, but with the same fixed purpose to establish a lymphatic communication between the healthy infra-aponeurotic tissue and the diseased obstruction and hypertrophied supra-aponeurotic tissues, Kondoleon excised a large strip of the fascia lata throughout the diseased area and stitched the edges of the aponeurosis to the underlying muscle with most gratifying results. That scar tissue will form in this gap is obvious, but the newly forming, anastomosing, lymphatics and veins will establish themselves so abundantly and quickly in so large an area that they seem to resist this constricting influence. This he first reported in 1912 and later in 1915. In 1913 Matas and Gessner reported this operation, being the first to perform it in America. Later Royster[10], Hill[11], Barber[12], Moschcowitz[13] and Sistrunk[14] reported success with it. Sistrunk's[15] large experience with it in the Mayo clinic has added much to its refinement.

Case:—Mrs. M., presented herself on April 18th, 1919, with elephantiasis of the right limb. Was born at Swansboro, Georgia, in 1894, and lived there until 18 years of age, when she moved with her family to Savannah. The swelling of the limb began when she was 17 years old. She was married when she was 15. Had a severe childbirth with pelvic infection and milk-leg at 17. Since then the limb has gradually become larger. During this period of 8 years she has had several attacks of elephantiasis fever, at which time there was an erysipelatous eruption with sudden onset of chill, fever and aching throughout the body. When she was 20 she had a laparotomy done and both tubes removed for a pelvic inflammatory condition. At the age of 21 she was examined for the filaria and she said it was found by one of the interns in one of the Savannah hospitals. A careful study of the blood a few months later was negative, as was also our own investigation. In January, 1918, silk threads were passed from the skin down through the deep fascia and out, numbers of these being inserted as setons from the ankle to the hip with the hope of relieving the lymphadenoma. This was after the method described by Handley in 1908 and which he himself has since abandoned. The scars of this procedure can be seen in the photographic plate. It failed absolutely to relieve her.

Family History. She came of normal par-

Fig. 3.—Showing amount of skin excised from outer aspect of limb.

ents. Father died of valvular heart disease at the age of 56. Mother living and healthy, age 55. Three sisters and three brothers living and healthy. One sister died of childbirth. During childhood she had measles, mumps, chicken-pox and whooping-cough. Vaccinated against small-pox. No hookworm infection. Menstruation established at 13. Suffered dysmenorrhea constantly until birth of the child.

Physical Examination. Stout blond, age 25 years; weight 148; height 5 ft., 4 in. Skin, mucous membrane, nose, throat and reflexes normal. Had Riggs's disease badly several years ago, but apparently cured. Chest and abdomen negative. Extremities, right limb much enlarged. Measurements: Thigh 26 inches; above knee, 22 inches; at the middle of the calf, 20 inches, and the ankle 11 inches.

Blood. Smears for filaria negative (through several night's study). No malaria parasites. Haemoglobin, 85%. Differential count shows: Polys 73%, Lympho 25%, Eosinophiles 2%; W. B. count 13,000; R. B. count 5,000,000. Stool examination negative. Blood Wassermann, negative.

Operation. Under ether anaesthesia, 1 hour and 40 minutes. Two incisions were made from the trochanter major to the external malleolus. (After Kondoleon's method with modification by Sistrunk). These incisions each began at the trochanter and diverged in the thigh until they were a distance of 10 c.m. apart, approaching each other slightly again at the lateral aspect of the knee to a distance of 6 c.m. apart and then diverging again to a distance of 10 c.m. apart at the center of the fore-leg; gradually converging again to meet at the external malleolus (See Figures 3 and 4).

Fig. 4.—Showing amount of skin excised from inner aspect of limb.

The subcutaneous tissue at the edges of the skin incisions was undercut for a distance of 4 c.m. and the skin flaps held back. When the fascia lata was reached, a strip of it was removed about 6 c.m. wide throughout the entire length of the incision.

Patient, however, was very anemic and developed a double pyelitis and a diarrhoea during her convalescence, which protracted it. The pyelitis was readily relieved by washing the renal pelvis with silver nitrate solution 1%. The diarrhoea was found to be due to gastric

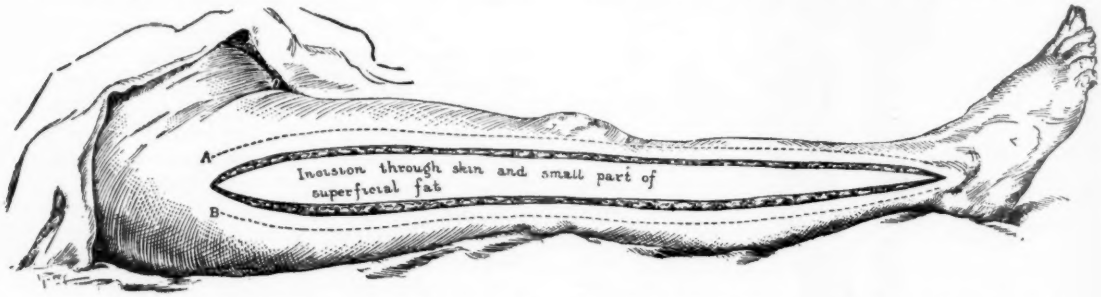

Fig. 5.—Incision used on the outer surface of the thigh and leg. Dotted lines A and B show extent to which the skin is reflected for the removal of subcutaneous fat.

This mass, consisting of skin, subcutaneous tissue and fascia lata, was removed enbloc. In Kondoleon's original operation, no skin was removed. It is of a great deal of advantage, however, as Sistrunk has shown, to remove about the same amount of skin as one does of the superficial fascia in order that there will be no redundancy of the skin. The skin edges were approximated and sutured after careful haemostasis. A similar flap was removed from the inner aspect of the limb from the trochanter minor to the internal malleolus, except that it was of smaller dimensions. The gross weight of the tissue removed was 6 pounds. Patient showed quite a little shock after operation, but reacted nicely. Both incisions healed by primary union.

anacidity and disappeared under large doses of hydrochloric acid, diluted and taken with each meal. For the first three weeks of her convalescence, 10 c.c. doses of antistreptococcic serum were administered at 3-day intervals. The limb was bandaged daily before arising with an elastic bandage. She was told to continue this for 3 or 4 months after operation. She was discharged on August 5th, 1919, in good condition.

The change in the appearance of the limb was astonishing within a week after the operation. In that portion of the limb not reached by the incision the oedema lost its hard, brawny feeling at once and resembled that of an ordinary varicose limb, subsiding very rapidly after the first week to a normal aspect,

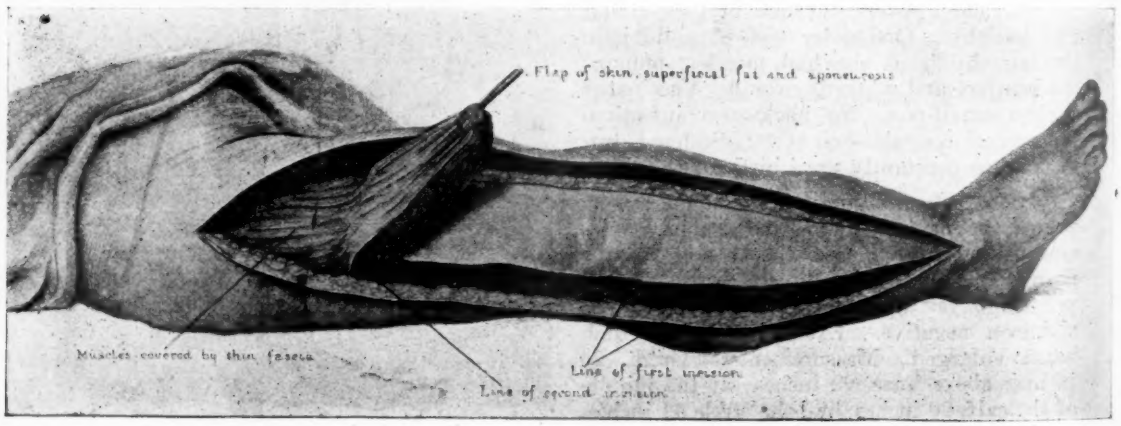
Flap of skin, superficial fat and aponeurosis
Muscles covered by thin fascia
Line of first incision
Line of second incision

Fig. 6.—Skin, a large amount of subcutane ous fat, and aponeurosis removed in one piece.

Fig. 7.—Before operation.

with very little pitting on pressure. There was oedema, of course, when the patient began to walk about.

Elephantiasis when due to a filaria infection is always due to the presence of the filarial Bancroftii, the embryos of which appear in the blood stream during the sleeping hours, whether one sleeps during the day or night. During the waking hours they seem to congregate in the large vessel in the neighborhood of the lung, the reason for which has never been explained. The mature filaria generally remain in the lymphatic channels or glands. There are about nineteen other different types of filaria. The only other one which is of interest is the filaria loa or diurna, which makes its appearance in the blood stream during the day only, regardless of whether the individual sleeps or is awake. This produces the circumscribed localized swelling of the scrotum, breast, eyelids, tongue, and is known as the calabar swelling . The intermediary host of the filaria Bancroftii is the mosquito, the principal types of which are the Stegomyia pseudo-Scutillaris and the culex fatigans. The intermediary host of the filaria loa or diurna is the mango fly.

Distribution of the filaria Bancroftii is rather diffuse, being largely distributed in India, Africa, South America, and to a certain extent in the southern United States. Charleston, South Carolina, has been known as a hot bed for elephantiasis. Johnson found that 19% of 400 people examined had filaria embryos in the blood. However, it must be remembered that only about 5% of the individuals showing filaria embryos in the blood ever develop elephantiasis and 90% of these infections are in the lower extremities.

Patients with marked elephantiasis show no

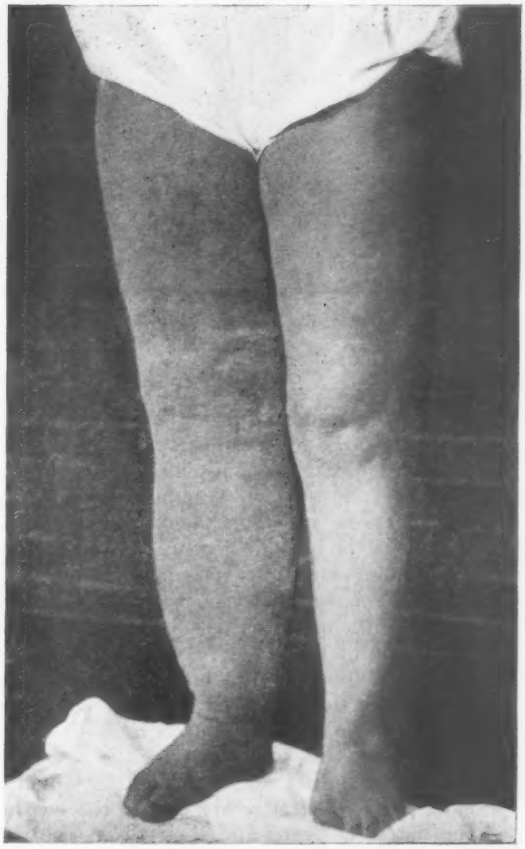

Fig. 8.—Before operation.

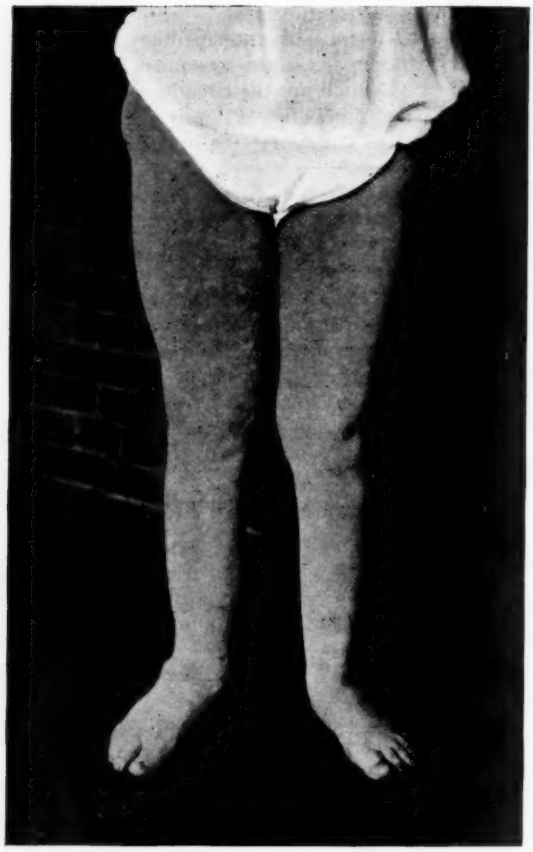

Fig. 9.—After operation.

filarial embryos in the blood. This leads us to the theory expressed by Matas in his classic, viz., that elephantiasis can be produced by repeated attacks of erysipelas without the presence of the filaria. Wellman, in West Africa; LeDantec, in French Guiana, and Tront, in Sierra Leone and the Congo, found no filaria present in the blood of many cases of elephantiasis, where conditions were most favorable for its presence, especially on account of the nakedness of the natives, this subjecting them more to trauma of the lower extremities and exposing them more to the bite of insects. Low maintained that lymphedema will remain such as long as no secondary infection with streptococci supervenes and that when it does occur the lymphangitis and fibromatosis which results in elephantiasis are due to the death of the filaria embryos and their disorganization. These erysipelatous attacks are referred to as elephantiasis fever and are repeated during the course of the disease, the condition becoming more marked after each. The streptococcus of erysipelas, or Fehleisen, has been isolated from elephantiasis repeatedly. Bancroft claims that 25% of native Fijians with elephantiasis show no filaria in the blood, so the presence of the streptococcus with the filaria Bancroftii would seem necessary to bring about the fibromatosis and lymphangitis necessary to produce the condition of elephantiasis.

The improvement of the circulation to the diseased part through the Kondoleon operation will enable us to make better use of remedies directed toward the extermination of embryos and adult filaria. Whether if let alone these people ever develop elephantiasis in other parts, I am unable to determine but, that they are still a source of danger to others through the mosquito, seems reasonable. Sal-

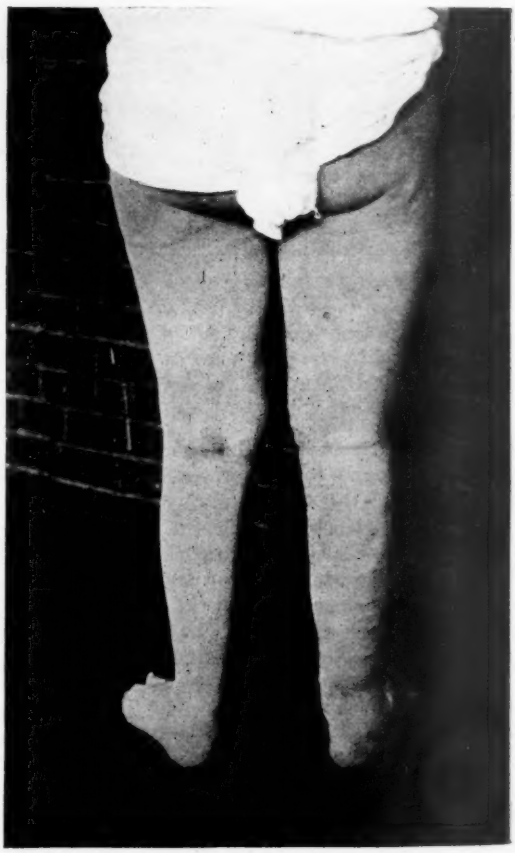

Fig. 10.—After operation.

varsan has been very unsuccessful, but I can find no record of a case having been treated with it after the Kondoleon procedure.

The greatest promise seems to come from the London School of Tropical Medicine where the followers of Sir Patrick Manson, especially that wizard of parasitology Sambon, have found that antimony intravenously has proven so effectual in parasitic diseases. It is considered a specific in kala-azar and, in no less a degree, in schistosomiasis or bilharziasis. In the sleeping sickness, the results have already shown great promise. Why not in elephantiasis after the Kondoleon operation?

BIBLIOGRAPHY.

1. Matas: Amer. Jour. Tropical Diseases and Preventive Medicine, 1913, i, 394.
2. Kondoleon: Centralblat. f. Chir., 1912, 39.
3. Handley: London Lancet, 1908, i, 783-785.
4. Sharpe, William: Amer. Jour. Medical Sciences, April, 1917, No. 4, vol. cl-iii. p. 563.
5. British Medical Journal: November 2, 1912. Report by Maddin, Ibraham and Ferguson of British Government School of Medicine.
6. Handley: British Medical Journal, April 19, 1910.
7. Lanz: Centralblat. f. Chir., 39, 1912.
8. Oppel: Kyrurg-Arkh. Velyaminova, (St. Petersburg) 1911, 27, 387-394.
9. Rosenow: Arch. f. Klin. Chir., 1912, 99, 645, 655.
10. Royster: Jour. Amer. Medical Assn., 1914, lxii.
11. Hill: Surgery, Gynæcology and Obstetrics, 1915, xxi, September.
12. Barber: Surgery, Gynæcology and Obstetrics, 1917, July.
13. Moschcowitz: Annals of Surgery, 1915, lxii.
14. Sistrunk: Surgery, Gynæcology and Obstetrics, April, 1918.
15. Sistrunk: Jour. Amer. Medical Assn., September, 1918.

MIGRAINOUS AND PITUITARY HEADACHES CONTRASTED.

By J. ALLISON HODGES, M. D., F. A. C. P., Richmond, Va.

Headache is the most common of all nervous symptoms, and no symptom requires more careful investigation as to its etiology, for the diagnosis is always to be made, not of this symptom, but of its basic cause.

Headache, then, is not a disease, but merely a symptom, and great care should be exercised to distinguish between functional disturbance on the one hand, and organic intracranial processes on the other, which may be the causative agents in the production of this symptom.

For our present consideration, we will briefly contrast migrainous and pituitary headaches, for both are grave as to their prognosis, and uncertain as to their cure, unless early recognized, and properly classified.

This brief contrast of the characteristics of a "symptom", present in both a functional and in an organic nerve condition, is offered for its suggestive purposes, and to arouse scientific interest in earlier diagnosis of such cases by the profession.

1. FREQUENCY:—The migrainous type of headache is more frequent than the pituitary, for, generally speaking, most of the persistently recurrent headaches are of migrainous origin.

2. LOCATION:—The migrainous headache is generally unilateral, sometimes occipital, while the pituitary, is frontal, fronto-occipital, or bitemporal, especially.

3. CHARACTER OF PAIN:—The migrainous headache is pulsating, throbbing and paroxysmal; the pituitary is constrictive, squeezing and persistent.

4. DURATION:—The migrainous headache is quasi-periodical, occurring at intervals of days or weeks, and lasting six to twenty-four hours, the patient, between attacks, being entirely free of local pains, and, after attacks, apparently better than before the attack, while in pituitary cases, there is no periodicity, the average patient suffering more or less constantly all the time.

5. SEX OCCURENCE:—Migrainous headaches occur oftener in women than in men, in the proportion of about three to one; while the pituitary, though showing about the same proportion in the sexes, is of less frequent occurrence numerically.

6. CONSTITUTIONAL TYPE: — Migrainous headaches occur in neurotic patients and families, and there is very often a history of direct inheritance; pituitary headaches have no heredity, and occur invariably in patients with pituitary dysfunction and the classical pituitary signs, such as abnormalities in body hair, too much or too little, irregularities of the teeth, certain changes in bodily bone development, and increased sugar tolerance, and other disturbances of nutrition, such as adiposity and changes in secondary sexual characters forming the Frölich syndrome.

7. ASSOCIATED SYMPTOMS:—In both migrainous and pituitary headaches, there are associated with the localized pain, two com-

mon symptoms, namely, nausea and vomiting, but these are more frequent in the former, and generally terminate each paroxysm, while they are not in evidence in the latter generally, until the cases have continued for a long time.

Migrainous headaches are often, also, accompanied by dimness of vision, by flashes of light, or by dark or light spots, variously colored, floating before the eyes, and sometimes by a temporary total hemianopia, but pituitary headaches are never preceded nor accompanied by a visual aura in the form of a scintillating scotoma, though, in the case of pituitary tumor, there may be permanent bitemporal hemianopia.

Also, while vertigo, tinnitus aurium, confusion of ideas, disturbances of memory, etc., are not uncommon in migrainous headaches, these associated symptoms are entirely lacking in pituitary headaches, and choked disc is absent in both migrainous and pituitary headaches.

The systolic blood pressure is also generally increased in migrainous headaches, especially at the time of the attack, while in pituitary headaches it is uniformly low.

8. Pathology:—The most plausible theory for the causation of migrainous headache, there being no morbid anatomical changes, is that it is, in large measure, a fulgurating neurosis, having its site in the cerebral cortex, or possibly in the primary sensory centres, from which there are periodical discharges of nerve force, and that these are precipitated by the presence of an excess of some endogenous toxin in the intestinal tract. On the other hand, pituitary headache is not the result of such functional disturbance, but is due to anatomical abnormalities which in part interfere with the proper functionation of the pituitary gland, this type of headache being due to an altered secretion of the pituitary, which causes swelling and consequent permanent enlargement of the gland. Whether this enlargement is caused by some compensatory demand upon this gland, because of dysfunction of the thyroid or suprarenal glands, or the insufficiency of the adrenals, is not definitely known, but the fact remains that the pituitary gland in many cases does enlarge and, because of its anatomical position and consequent constriction in a bony enclosure, especially when the clinoid processes are abnormal, or the fossa is limited in size, and sufficient space is not allowed, except laterally, for this new growth to expand, consequently, there must arise pressure symptoms and resultant localized pain.

9. Therapeutic Response:—Migrainous headaches are rebellious to a degree to all treament, whether symptomatic or constitutional, while pituitary headaches, in properly selected patients, are uniformly responsive to glandular therapy in proper dosage, usually 2 grains of the pituitary extract, administered four hours after meals, and continued over a long period, and increased or decreased according to developments in the individual case.

10. Summary:—Of the two types of headache now being considered, the migrainous is the result of a constitutional neurosis; the pituitary is the result, physiological in part and in part pathological, of enlargement of the pituitary gland, situated, as it is, in bony and unyielding walls which do not allow symmetrical development, and, consequently, pressure symptoms are produced.

Migrainous headaches occur paroxysmally in neurotic individuals, often with a history of direct heredity, and at any time of life, and are congestive in type, and characterized by periodical attacks of pain, continuing for variable periods in the course of the fifth nerve, and often associated with nausea or vomiting and various vasomotor disturbances, which are intractable to treatment.

Pituitary headaches are localized and persistent in type, and occur in patients showing the clinical dyspituitary disorders named above and, because of dysfunction of the pituitary gland in these patients, there occur pressure symptoms of headache, vertigo and vomiting, which are usually relieved by continuous and proper glandular feeding.

The prognosis in migrainous headache is uncertain and discouraging and generally irresponsive to any treatment before a patient is forty years of age. After approximately that age, there may be improvement or sometimes, spontaneous recovery, while in pituitary headache, the prognosis is favorable and satisfactory, if treated early by appropriate glandular extract.

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URETERAL STRICTURE.
(In the Female).*

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The occurrence of Ureteral Stricture as a definite clinical and pathologic entity is no longer questioned but a generally accepted fact and, therefore, it is not necessary to repeat or review evidence to substantiate same.

In the ETIOLOGY, the leading role is no doubt played by focal infection, which may be quite remote, such as tonsils, teeth, paranasal sinuses, the alimentary tract, etc. Old infections of the urinary tract and intra-abdominal inflammatory processes or adhesions incident thereto, possibly play a factor in a small percentage of cases. It is conceivable that an old pyelitis persisting from infancy or childhood, more or less intermittent in its manifestations, may ultimately lead to stricture formation in the ureters in a manner somewhat analogous to the formation of strictures of the urethra as a result of chronic gonorrhoea.

COMPLICATIONS. Various degrees of hydronephrosis, pyletis, pylelonephritis, etc., may be found in association with ureteral strictures and, in a measure, represent rather the duration or stage of the process. For instance, hydronephrosis develops inevitably from stagnation and damming back incident to the obstructed ureter and infection is sooner or later superimposed. Occasionally, however, one meets with an associated pyelitis and only a negligible dilatation of the renal pelvis. Given then, a hydronephrosis with infection, pyelonephrosis, pyelonephritis, etc., very largely represent the further degree of development of the process which may lead even to abscess of the kidney or destruction of practically the entire kidney or possibly the deposition of renal calculi. Two such cases have been observed and will be reported, subject to the criticism, that the Roentgen ray is not infallible but, since stones were subsequently shown and even "sandy deposits" and confirmed at operation, it seems reasonable to presume that they were not present at the time of the former pictures and especially in that good detail otherwise obtained.

SYMPTOMS AND DIAGNOSIS. There is pain in the right, left or both sides of the abdomen, as the case may be, low down, just above the pubes, more central than the typical ovarian pain and yet more lateral than the typical uterine pain. It may be dull aching, and constant or remittent, and colicky or sharp, and cutting in type. Usually present, to a greater or less degree, is frequency of micturition, both day and night. During the acute or sub-acute exacerbations (and such nearly always occur in association with the menstrual period), these may be more pronounced but, even in the chronic or silent stage, in so far as pain is concerned, there is most often some increased desire to void and nocturia, once to several times each night. I consider a history of nocturia in itself, certainly when as often as two to three times each night, a definite indication to look further into the urinary tract for trouble and it is seldom that a cause for same cannot be located even though no more than a mild chronic trigonitis. With severe blockage and marked damming back, the enlarged kidney may, of course, be palpated but such degrees are so obvious as to be passed in this discussion. So, too, tuberculosis of the kidneys or ureters, or strictures resulting therefrom, have no part in this, since it represents an entirely different classification and method of treatment.

An incidental finding in these cases is excessive, prolonged and painful menstruation without other demonstrable cause and this has disappeared with the relief obtained from the strictures and renal infection. In fact, since its first observaton, I have constantly obtained such a history with but one exception and, therefore, the temptation to include ureteral stricture as one of the causes of menorrhagia and dysmenorrhoea—doubtless explained by the increased pelvic congestion.

The cardinal features in the diagnosis of this class of cases that I would emphasize are the old findings, which I believe were first ascribed to tuberculosis and found rather constantly, but known now to be present in other chronic lesions of the kidneys and ureters, namely, thickened cord-like ureters, especially of the lower ends for a distance of three to six or seven or more centimeters from their entrance into the bladder; and the sensation of a desire to void as one palpates or rolls these thickened ureters. In the routine pelvic examination the bladder and lower ends of the ureters should be examined before the uterus

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is bimanually palpated, firstly, to determine any lesion of them and, secondly, to not be misled by the pain or sensitiveness produced in them, should they be diseased, in the act of palpation of the uterus and tubes, since pressure of these against inflamed ureters will produce pain and this naturally would be attributed to the tube, if the ureter has not been previously ruled out. Not infrequently, the patient will at once and positively identify the pain produced by palpation of the ureter as that from which she suffers. The other cardinal finding is the desire to void incident to the palpation or rolling of the ureters. Not infrequently this is so pronounced that she will void involuntarily; more frequently, however, she will complain of the desire to void and ask that the examination be interrupted for same or, in a fewer, this will be elicited only upon direct inquiry. As said concerning nocturia, so also as regards these two findings, they have never failed to indicate some lesion in the urinary tract and borne out upon further search for same. Of course, the actual proof is obtained by cystoscopic examination, meeting the obstruction on attempt to pass the ureteral catheter, the frequent necessity to change to a much smaller one, again, the positive identity by the patient of the pain as the catheter engages the stricture. Roentgenograms, after injection of thorium or sodium bromide into the renal pelvis, show not only a dilated pelvis but a dilated ureter down to the location of the stricture. Further proof is found in the complete relief from symptoms subsequent to dilatation of the stricture and cure of the renal infection.

Treatment. There should be gradual and progressive dilatation of the strictures by means of wax bulbs placed upon the ureteral catheter or the equivalent with bougies or some other means. For the infection, lavage of the renal pelvis has given me far more satisfactory results than any other form of treatment and, until recently, silver nitrate was the antiseptic of choice but, since the introduction of mercurochrome-220, I have had as good or better results; certainly it has proven effectual in one case after silver nitrate, even in 10 per cent. solution, had failed. The focus of infection should, of course, be located, if possible, and removed and is next in importance to the cure of strictures since, without its elimination, there will frequently be a recurrence.

Case 1. S. P., age 32 years. Stricture without complication. She had a severe attack of typhoid fever as a child. Menstrual history negative until present illness. Married at 16 years, gave birth to a child one year later, normal delivery and puerperium. Separated from her husband two years later. She has never had tonsillitis but teeth and gums have been bad and only recently corrected. Present complaint dates back about ten years and began with pain in the right lower abdomen, constant but with exacerbations of several days' duration, these are associated with the marked frequency of micturition, as often as every half hour. Some frequency and nocturia, two to three times each night, are present all the time but never any dysuria. Menses have increased in quantity until at present they are quite excessive and associated with some pain. Two years previously she was subjected to operation because of the pain and the excessive menstruation. This, she says, was an appendectomy, suspension of the uterus, and the removal of "all of one ovary and part of the other." No improvement followed. She was then advised that "everything be taken out," but, before submitting, she sought consultation elsewhere.

Examination was negative except for thickening and tenderness of the right ureter and the desire to void produced by palpation of same. The pain she positively identified as that from which she suffers. Upon cystoscopic examination, a No. 8 catheter engaged the stricture 4 cm. but could not be passed beyond. A No. 6 was then substituted and passed but with appreciable resistance through the stricture and again she identified the location of her pain. Capacity of the renal pelvis 11 cc. Cultures and microscopic examination of the urine were negative. Progressive dilatation of the stricture at intervals of ten days was employed with relief from the pain after the first, and, at the fourth, a wax bulb 4.5 mm. was used which was considered sufficient and at this time the renal pelvis capacity was 8 cc. She has been free from former symptoms for several months.

Case 2. A. H. M., age 40 years. Bilateral strictures with pyelonephrosis and right renal calculus. She has had pain in lower abdomen, both sides, for about seven years, asso-

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ciated with frequency of micturition, nocturia, up to dozen times, and dysuria. She also has dull dragging pains and a sensation of heaviness in the region of both kidneys, never any sharp pains. X-ray report, six years ago, was negative for stones. She was subjected to pelvic operation at this time, without relief; exact nature of this I could not determine.

Examination negative except for presence of the two signs as in the previous case. Cystoscopic examination revealed a diffuse cystitis, strictures of both ureters 4.5 cm. from the orifice, and pyelonephrosis of 56 cc. on the right and 30 cc. on the left. Urine from each kidney showed much detritus, kidney cells of all types and many red blood cells as well as pus. Cultures gave pure colon bacillus. There was a suspicious but not definite scratch on the waxed tip of the catheter from the right kidney. Because of pain incident to the acute cystitis, the bladder alone was treated with instillations for several weeks. Two months later she was again cystoscoped: the bladder was quite improved, and larger catheters passed into the kidney pelves. The capacity of the right was 34 cc. and of the left 18 cc., quite appreciable improvement, as you will note. Several succeeding treatments completed the dilatation of the strictures and pelvic lavages with nitrate of silver destroyed the infections and the capacity of the pelves reduced to 15 cc. each side, the symptoms entirely disappearing. X-ray was then requested because of the suspicious scratches previously obtained but, during the night preceding, she had a typical attack of kidney colic on the right side, which persisted throughout the night and was only partially relieved by opiates. By morning a large mass appeared in the flank, identified as an enlarged kidney. X-ray showed a large stone in the pelvis of the kidney and a smaller one lodged in the ureter about two inches from the bladder: the latter, aided by bimanual "stripping", was passed after several days, and the acute hydronephrosis promptly disappeared. There was no recurrence of infection in the kidney. I was then called to military service and, upon return, found that a few weeks previously, following a severe "cold," she began to have "uneasy feeling" in the region of the right kidney and some frequency of micturition. Examination revealed a recurrence of the infection, but not of the strictures. This was readily destroyed by several lavages and the stone removed by pyelotomy with suture of pelvis and closure without drainage. Convalescence was uninterrupted and she has been free from urinary symptoms for nearly two years.

Case 3. S. R., age 39 years. Left ureteral stricture, pyonephrosis with destruction of kidney substance and stone.

Complaint. Pain over the course of the entire left ureter, but worse over the lower end, in the region of the kidney, and referred over the entire abdomen.

History. She does not remember the onset, so long has she suffered. Even in early childhood she had attacks very suggestive of pyelitis and says she was treated for "kidney trouble." From 14 to 19 years of age, she had many attacks of pain in the region of the left kidney and ureter with fever for several days. Work, buggy riding or strenuous exercise would precipitate an attack. For these she was treated by hot applications, antikamnia and opiates. More often the attacks subsided gradually but occasionally they were relieved quite suddenly. Since 19 years of age she has not had an acute attack but constant, dull aching pains in the left side, worse at the time of menstruation and, therefore, had been attributed to the ovaries. At times she has been quite run down and forced to give up work. X-ray in 1915 was negative and she was subjected to a pelvic operation from which she experienced no relief or from any other treatment and was recently advised that another pelvic operation was necessary. At present she is drowsy and feels sluggish all the time and sleep is disturbed by nightmares.

Examination yielded results as in the above cases. The stricture was 3.5 cm. from the ureteral orifice. The right kidney was normal in every respect. The left showed a pelvic capacity of 30 cc., and urine literally loaded with pus and kidney cells of all types, many red blood cells and very large bacilli, later identified as Proteus Vulgaris in pure culture. The strictures were readily dilated but the infection was quite resistant, failing to yield to silver nitrate even in 10 per cent solution, but the pelvic capacity reduced to 18 cc. X-ray showed a large stone in the pelvis and several small sandy deposits in the lower pole. Believing it advisable to destroy the infection be-

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fore operating, various things were tried without success, until mercurochrome-220 in 1 per cent solution, after several lavages, succeeded. At operation, the entire lower half of the kidney was found to be a mere shell, quite necrotic in areas, breaking even under the gentlest manipulation and, therefore, a nephrectomy was done. Convalesence was uninterrupted and she has been free from symptoms about one year.

SUMMARY.

1. The frequent occurrence of ureteral strictures, with or without its several complications.
2. The routine palpation of the bladder and ureter at the beginning of the bimanual examination.
3. In the event of other troubles in the pelvis, the ureteral stricture is the more urgent in the vast majority and should be cured before any operative measures.
4. The importance of the two signs, thickened ureters and the desire to void, produced by the palpation of these.
5. Progressive dilatation of the strictures.
6. Cure of the renal infection.
7. Location of the focus of infection and its removal.

Lamar Building.

RADIUM IN THE TREATMENT OF CANCER OF THE UTERUS.*

By JOS. J. MUNDELL, M. D., F. A. C. S., Washington, D. C.

As with all innovations, not alone in medicine, radium has passed through the usual phases of enthusiasm and condemnation, but, judging from the voluminous literature, its niche in the doctor's armamentarium, if not already established is near at hand.

We in Washington probably have been too close to Baltimore to fully realize until very lately the excellent work that is being done with radium throughout the country. The hopeless case, as a last resort, has been sent to Baltimore, where the patient, according to the patient's testimony, has been promised a cure. The patient returned home and in due course of time the case ended fatally in the usual manner. This state of affairs, existing for the past several years, naturally has created here a strong prejudice against the use of radium. But that good results are being obtained in the treatment of cancer cannot be denied, for too many eminent and conservative men testify to this.

Your time will not be taken up with the physics of radium, as we are all more concerned in its clinical results.

Radium is said to have a selective action on the cancer cell. The work of Francis Carter Woods and Frederick Prime, of the George Crocker Special Research Fund of Columbia University, and also of James Ewing, is conspicuous along this line. We frequently hear the expression that radium kills the cancer cell. They state that it does not kill the cell directly but that it inhibits the power of the cell to reproduce itself, that is, it limits mitosis and eventually the cell dies. Soon after a lethal dose of radium the nucleus begins to break up and become granular and after a time a shrunken cell membrane is all that remains of the formerly malignant cell and, later, fibrosis occurs. A sublethal dose may have this same result, but its action is slower; but a too small dose will not only not have this action but seems to stimulate the reproductivity of the cell.

For therapeutic purposes cancer may be classified as operable and inoperable, and the inoperable further classified as early, just beyond the border line, and hopeless. When I speak of cancer, I have in mind more particularly cancer of the uterus.

In cancer of the body of the uterus, hysterectomy will produce sixty per cent. or more cures; therefore surgery is indicated here. The reason for this is that cancer of the body is, no doubt, a localized condition for a long time and that metastasis is slower than in cervix cases because in cervix cases cancer spreads by way of the broad ligament, and spreads rapidly, while in fundal cases it spreads by way of the inguinal glands and metastasis is slower. When the inguinal glands are involved, one may feel sure that there is cancer of the body. Then, too, there is added risk in the introduction of radium into the body of the uterus, whose walls are thinned out and ulcerated, for it is very easy to puncture such a uterine wall and set up peritonitis, etc. Therefore, surgery is the treatment of choice.

Regarding the treatment of an operable case of cancer of the cervix, the concensus of opinion at present is that such a case should

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have a pan-hysterectomy, and that it should be radiumized after operation. If the theory of the action of radium upon the cancer cell, as stated before, is true, then the radiumizing of these cases is logical. Stress is laid upon the *present* concensus of opinion regarding these cases because there are some men, and they are not looked upon as ultra radicals either, who hold the belief that within five years all cases of cancer of the cervix will have been taken out of the realm of surgery. However, the writer has not as yet become sufficiently "hipped" upon the subject to subscribe to this view.

Probably the most brilliant result obtained with radium is in the same type of case in which surgery is successful, namely in the early operable case, but in which there is a concomitant complication, such as cardio-renal disease, lung condition, etc., which would bar the administration of an anesthetic. Here radium steps in and does wonderful work without risk.

During the past five years at the London Radium Institute, in the cases that have been radiumized before and after operation, recurrences have been less than twenty per cent.

This brings us to the question, when is a case inoperable?

There are four cardinal symptoms that may be said to establish a criterion. A case is inoperable when there is:

1. Involvement of the vaginal mucous membrane;
2. Involvement of the broad ligaments;
3. Lateral immobility of the fundus;
4. Fixation of the cervix.

If one or more of these symptoms are present, the case is inoperable.

The next most favorable type is the case just over the borderline of operability presenting one or more of the symptoms just mentioned. If the skeptic says he has not seen any good results from radium, how many here tonight can recount many, if any, cures brought about by surgery in this type of case? Occasionally there may be one, but you all know of and have seen cases in which hysterectomy not only did not cure the patient, but apparently acted as a bellows, as if fanning the fire into a conflagration and hastening the end. The operation indicated in such a case is a Wertheim, and Reuben Petersen is authority for the statement that there are not a great number of men in this country capable of doing a complete and thorough Wertheim. Then too, the dangers attendant upon a Wertheim operation are stupendous; probably thirty-five per cent. of the patients succumb as a result of the operation, even in the hands of skilled operators. In this type of case, radium is the treatment of choice. The testimony of a host of writers, notably John G. Clark, Wm. P. Graves and the Mayos, bears out this statement, for they all have under observation many cases living and enjoying apparently good health two to four years after treatment. In a conversation with John G. Clark last week, he stated that in a series of 400 cases of inoperable cancer of the cervix, he has eighteen per cent. living and apparently in good condition at the end of four years. Compare this with the memories of your patients whom you have seen operated on.

In the advanced inoperable case it is not always wise to use radium. Certainly, a cure should not be expected, for it is not claimed for radium that it is a miracle worker. It is no doubt due to this type of case that radium has received so much of its opprobrium. In the past, such a case, having failed to be benefited by all other methods of treatment, as a last resort was sent for radiation and unfortunately, perhaps, was promised a cure. Treatment of such a case is frequently attended with dire consequences. The tissues being greatly devitalized, application of radium against them for several hours may result in necrosis and the formation of fistula. It is said by many, however, that fistulae do not occur more frequently in treated than in untreated cases of this type. Even though much should not be offered to an advanced case, at times the improvement noted is amazing, the bleeding is checked, the terrible stench is abated, and the general condition of the patient so greatly benefited that she is given a respite and, if only temporarily, she is made comfortable, which is certainly worth while.

One must be careful in the administration of radium for there are certain pitfalls likely to ensnare one, the dangers of which are great. Therefore, one should be sufficiently adept at pelvic examinations to rule out any inflammatory adnexal disease, such as, for instance, old latent pus tubes, which are prone to be lighted

up causing acute salpingitis and peritonitis. Such a complication coming on top of a cancerous condition in an already debilitated patient would, to say the least, be apt to disturb one's equanimity. Therefore, in radium therapy in gynecological conditions, the best results probably are obtained by one who has had some gynecological training.

As to results, it is questionable, except in a few very early operable cases of cancer of the cervix, if the disease is ever entirely eradicated, but, after radium treatment, there are many cases in which we obtain clinical cures,—that is for two, three, or five years the patient is living, apparently in good health, and all evidence of local disease has disappeared. For this we have the testimony of such eminent men as before mentioned and a host of others.

You may have noticed, nowhere in this article has it been stated that radium cures cancer nor have any wild and extravagant claims been made for it, but the effort is made to convey the impression that it does inhibit its growth and retard its progess more efficaciously, except in a very few cases, than does surgery.

It has been stated, and probably correctly, that eighty per cent. of all cases of cancer of the cervix are inoperable when seen by the surgeon. This is not due, as has been stated so frequently, to ignorance or carelessness on the part of the family physician, but because cancer of the cervix is slow in producing symptoms at first. For the first six months of its life it produces no symptoms and during the next six months, often the symptoms being so slight, the patient is deliberating upon consulting her physician, so that in a vast number of cases a whole year has elapsed since the onset of the disease before she is seen by a surgeon and then, of course, deep inroads in the form of metastasis have occurred.

It is also stated, and no doubt correctly, that twenty to twenty-five per cent. of cases operated on are cured. If these statements be true, as evidently they are, it is plain to see that surgery really only cures about five or six per cent of the total number of cases of cancer of the cervix. Compare this, if you will, with Clark's statistics.

The use of radium has brought about this state of affairs, namely: Instead of as heretofore, evident past borderline cases are not now operated on, thus getting a higher percentage of cures by operating, and as the profession, by reason of radium work, is more alert in detecting cancer, it is hoped that we may see the cases much earlier and, therefore, radium should be looked upon not as a competitor, but as a handmaid to surgery.

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PYORRHOEA ALVEOLARIS AS AN ETIOLOGICAL FACTOR IN THE NON-RELIEF OF SYMPTOMS AFTER SURGICAL OPERATION.*

By GEORGE H. BUNCH, M. D., Columbia, S. C.

The primary purpose of any Medical Society is to make better doctors of its members. This is accomplished by the presentation of clinical observations and problems and the discussion of them by those present who have had similar problems. In this way, every fellow profits by the experience of the other fellow. It is not the report of the very rare case that is of most benefit to the society. The more common the condition the more good is likely to result from a discussion of its early recognition and proper treatment.

Pyorrhoea Alveolaris is a disease of more than academic interest in South Carolina. Our records show that of 251 white patients over 21 years of age examined and treated surgically by us in 1920, 15 had no teeth or false teeth: 106, or 44.8 per cent. of those with teeth, had pyorrhoea associated with more or less dental decay sufficiently advanced to be recognized at a glance by the physician making the physical examination; 130, or 55.2 per cent. are classified as having good teeth. Of 114 adult negroes, 3 had no teeth; 65, or 47.4 per cent of those with teeth, had pyorrhoea: 82, or 52.6 per cent. had good teeth. Of the total 347 adult patients, 182, or 52.6 per cent. had good teeth: 165, or 47.4 per cent, had pyorrhoea with bad teeth. We find the incidence of pyorrhoea increases with the age of the patient. Children do not often have it. There is more than twice the percentage of poor teeth and infected mouths in those over 40 years of age (65 per cent.) than there is in those between 20 and 30 years of age (30 per cent.) In this series of cases, only gross pathology was noted. We believe that careful ex-

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amination will show almost 90 per cent of our adult patients to have some form of mouth infection.

Pyorrhoea means a flow of pus and pyorrhoea alveolaris is a purulent discharge from the alveolar processes. Although the infecting organism has not been proven and accepted, the condition must be an infection of the pericementum and gums. The pericementum or peridental membrane lines the hidden portion of the tooth. It only comes to the gum margin and may be considered as the periosteum of the tooth. It differs from periosteum in that the pericementum when destroyed does not regenerate.

Any chronic irritation within the mouth predisposes towards pyorrhoea. Beginning locally, the disease is progressive and ultimately, if treatment is neglected, all the teeth become involved. It never develops about a clean tooth but it is often found about sound teeth. An accumulation of sordes, food debris, mould about a tooth is the food necessary for the development of the organisms which must be often present in every mouth. The gums become tender, swollen and spongy; they are purple in color as if from a venous congestion. In severe cases they bleed easily, from being touched by the examining finger. As the pericementum is involved and destroyed, the gums recede from the teeth. When pressed with the finger, the tissues about the teeth exude a foul pus. The teeth become loosened and, in advanced cases, may fall out. The breath is stinking—no other word expresses its foulness. From the tenderness about the teeth, chewing is at first painful. Later, when the teeth are loose, proper mastication is impossible. The discharging pus is swallowed with the saliva. The patient loses appetite. Nothing tastes right. There is absorption of toxins and the infecting organisms may get in the blood, causing arthritis, endocarditis, nephritis with hypertension, or any of the systemic conditions dependent upon focal infection. Patients with extensive pyorrhoea do not, cannot, feel well. There is a lack of energy, a tendency to headache, to constipation, to backache. They tire easily. They are subnormal. They have a mild secondary anemia and are apt to be sallow.

The disease is often associated with abdominal pathology demanding surgery. Whether this in any way has the relationship of cause and effect, or whether it is merely a coincidence, we do not know. It is not unreasonable to suppose, however, that pyorrhoea might cause duodenal ulcer, cholecystitis, or appendicitis, either through the blood stream or by direct infection from the swallowed pus. It would be interesting to watch a series of such cases, in which the pyorrhoea has been properly treated, to see if there is improvement in the abdominal pathology from the removal of the focus of infection. We believe that women with it have a tendency toward increased and irregular menstrual flow. We believe that, if there is local pathology in the pelvis to cause uterine bleeding, the toxemia from pyorrhoea makes it worse. If there is backache from uterine misplacement, if there is indigestion from gastric or duodenal ulcer, if there is loss of appetite or nausea from chronic gall-bladder disease, the symptom is accentuated by pyorrhea. These people, although not actually sick are chronically indisposed, and abdominal or pelvic surgery done on them will not entirely relieve them of symptoms until the associated pyorrhoea is removed.

This is a disease the direct result of unclean teeth. Work for its prevention should begin as soon as the teeth are cut and should continue as long as the teeth last. General Obregon has wisely said he had rather teach the Mexican people to use a tooth brush than the rifle. The use of the tooth brush and the necessity for clean teeth should be taught in the home and in the school. The tooth brush is even more important than the wash rag. Teeth that are well brushed twice a day with a stiff brush will not become infected nor will they decay. When pyorrhoea is recognized, the patient should be sent to a competent dentist to have the teeth freed from mould and tartar, especially about the roots. Accumulations should be removed and kept removed by the tooth brush supplemented by periodic visits to the dentist. If two-thirds the pericementum is destroyed, the tooth is hopeless and must be extracted.

When the patient has an abdominal lesion demanding surgery, shall the teeth be pulled before or after operation? Each case must be decided on its merits. If a simple appendectomy is done and the patient is in good condition, the teeth may be pulled before he comes from under the ether. If the operative risk

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be poor and the necessity for operation not imperative, the teeth should be pulled under gas anaesthesia and the patient allowed sufficient time to get the benefit of the extraction and the freedom from absorption before submitting him to operation. After extraction, the sockets should be curetted to remove all loose fragments and dead bone. Pulling teeth is more of a shock to the patient than we realize and should not be done at the time of operation unless the patient is in condition to withstand the double ordeal.

The necessity for specific treatment of the luetic patient after operation is recognized everywhere. The frequency of malaria in this climate as a cause of post-operative fever has not been appreciated. The role of syphilis, tuberculosis, malaria and hookworm in complicating surgical convalescence and in indefinitely prolonging post-operative morbidity, must not be forgotten. Pyorrhoea is more common than any of these and may be the unrecognized and untreated cause of continued ill health after operations that have removed the abdominal pathology but have not cured the patient. We have had cases demonstrating this repeatedly and in conclusion will give one case history.

1920. Case No. 281. Mrs. F. H., age 38, housewife, mother of 4 children, all living, youngest 3 years, was admitted to the Baptist Hospital, September 27th, 1920.

Family History—Negative.

Previous History.—She had influenza in 1918. The menstrual period have been irregular for two years, coming every two to four weeks and lasting five days with considerable flow. Her back aches all the time. Her head aches during menstruation.

Present History.—For two years she has had pain and tenderness below navel on right side but has had no acute attacks. She is often nauseated but this has no relationship to eating and she does not vomit. She has no appetite and is very weak. She has had bad teeth for over a year.

Physical Examination shows a frail woman, sallow, somewhat emaciated. Her breath is foul. She has advanced pyorrhoea. Several molar teeth are missing but all the teeth present are involved. The gums are spongy and bleed when touched. Many of the teeth are loose and pus wells up about them when the gums are pressed against them.

The chest is negative. The urine is negative. There is tenderness on deep pressure over McBurney' point. Bimanual pelvic examination shows the uterus retroverted without evidence of adnexal inflammation. The perineum is lacerated and relaxed.

Pre-Operative Diagnosis.—Chronic appendicitis, retroversion, lacerated perineum.

At Operation. Open type, non-inflammatory appendix was removed. The uterus was suspended by the Gilliam method and perineorrhaphy done.

Post Operative History.—Convalescence was slow. The laparotomy wound suppurated but healed without hernia. The patient sat up the 14th day and went home on the 21st day but she did not gain strength and weight satisfactorily. The headache, the backache, the nausea, the weakness continued but were less severe. The pain in the right side has not been felt since operation. On December 6th, under gas anaesthesia she had all her teeth extracted. When seen on January 6th. all evidence of pyorrhoea had disappeared. Her appetite was ravenous. The nausea, the backache, the headache had not been felt since her teeth had been pulled. She complained of her clothes being tight and says she has gained 14 pounds. Her color is good. She is a new woman.

THE ELECTROCARDIOGRAPH IN DIAGNOSIS.*

By DOUGLAS VANDERHOOF, A. M., M. D., Richmond, Va.
Professor of Medicine in the Medical College of Virginia.

The electrocardiograph is an instrument of precision for registering the action current generated by the contraction of the heart muscle.

Simply described, it consists of a powerful electro-magnet between the poles of which is suspended a very delicate string or fibre, made of quartz and covered with gold or silver. The diameter of the string is from 1.5 to 3.5 microns; its length is about 13 centimeters.

The string being so fine, it is necessary to have some arrangement by which its movements may be registered. As a consequence, an arc light is utilized to illuminate this tiny string and by a system of lenses the light is focused on the string. By means of a projec-

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tion microscope the image is thrown on a photographic film which moves at a constant speed which, when developed, gives the electrocardiogram.

In order to understand the nature of the electrocardiogram, it is necessary to keep continually before the mind that such curves and tracings obtained by the electrocardiograph are accurate time records of the contracting heart, and as such the records must be interpreted. The instrument yields most information in the arrhythmias, and in this field the knowledge gained is accurate and fundamental. The effort is frequently made to cause the instrument to tell of specific pathological conditions in the heart, such as valve lesions, etc., but so far this has met with ill success.

The most frequent question that one is asked is, Why does not an hypertrophied heart give an electrocardiogram proportional in size to its enlargement? The answer to this is understood when one remembers the gross anatomy of the heart. It should be recalled that the embryonic heart is a tube and, during development, that it is gradually folded upon itself in such a way as to make the four chambers and their orifices. In the folding process, muscle fibres become criss-crossed, thinned in some places, thickened in others, and form altogether a very complex arrangement. Now, the galvanometer will do only one thing and that is to tell the difference in potential (voltage, if you please) between any two points; and so the electrocardiograph will show at any instant of the cardiac cycle the voltage of cardiac muscles then contracting. The electrocardiogram is, therefore, a resultant voltage curve of cardiac muscles during the cardiac cycle.

The different waves that go to make up an electrocardiogram are called, as you probably know, P, Q, R, S, T, U, and lettered in the order of their occurrence. Considered separately, as to what these waves are ascribed: The P wave is caused by the contraction of the auricles, the contraction being initiated at the sino-auricular node and spreading over the auricles. The impulse is transmitted through the bundle of His and spreads to the two ventricles causing ventricular contraction. The time required for the transmission of this impulse in normal hearts is from .16 to .21 seconds. This interval of time is called the P-R interval and represents the conduction time.

In the analysis of electrocardiograms, the conduction time gives evidence of the patency of this auriculo-ventricular pathway, or of damage to this bundle of His, simply from the measurement of this interval. The interval may be altered temporarily by fever and by certain drugs, notably digitalis, in addition to its change in organic disease.

Following the P wave, the Q, R, S group occurs. These waves are caused by the ventricular contraction and, of the three excursions, the R is the most important; its direction, whether up or down, indicates the preponderance of the right or left ventricle. The height of the ventricular excursion indicates, according to some workers, the force of the cardiac contraction. However, this point is unsettled and does not seem sound, as the heart of a frog with ventricles empty of fluid may in contraction produce excursions 4 to 5 cm. high, whereas, when pumping blood normally, the ventricular excursion is not more than 1 cm. The Q-R-S interval has been said to be an index of the condition of the arborization of the neuromuscular bundle in the ventricles, and a prolongation of this time means damage to the arborization of the conducting paths.

The T wave is the one about which least is known and there is no proof that gives a definite cause for it. Lewis states that it is usually positive, i. e., upright, but it may be negative, or inverted, in electrocardiograms of healthy subjects. Digitalis causes a change in its sign (from positive to negative) and this change occurs when the heart is thoroughly digitalized. The sign is an excellent one for gauging digitalis therapy. A negative (inverted) T wave in the so-called second lead, provided the patient is not digitalized, indicates serious myocardial disease and a most unfavorable prognosis. The U deflection is sometimes seen in electrocardiograms of slow heart rates and to it no significance is attached, as it occurs for the most part in normal individuals.

Electrocardiograms are obtained from three positions, namely from right arm to left arm, called Lead I; from right arm to left leg, called Lead II; from left arm to left leg, called Lead III. These three leads, or derivations, give certain information when considered collectively. It is not necessary from a mathematical point of view to take three leads, as given any two leads the third can be con-

structed. Such, however, is tedious and it is much simpler to take the three leads.

Briefly considered, the things that are quickly determined by the electrocardiograph are variations in rhythm and rate, such as paroxysmal tachycardia, sinus arrhythmia, ventricular rhythm or nodal rhythm, auricular flutter, auricular fibrillation, heart-block, the various forms of extra systoles and their foci of origin, tripling or coupling of the heart beat, etc. In addition, good evidence is secured of localized or widespread myocardial disease, together with evidence of preponderance of the right or left ventricle.

Is the electrocardiograph essential in the diagnosis and treatment of heart disease? Perhaps this question can best be answered by an analogy to the use of the Roentgen ray in its influence on diagnosis and treatment. Given a case of fractured long bone in the leg, the surgeon can diagnose the fracture and apply proper treatment without the use of the x-ray but it is a comfort to the surgeon to demonstrate the fracture and to satisfy himself that the ends of the broken bone have been properly approximated. Given, also, a typical case of uncomplicated duodenal ulcer with its history of hunger pain and food relief, the diagnosis can usually be made from the symptoms alone and appropriate treatment outlined; yet the physician is better satisfied if the x-ray examination confirms the clinical features of the case, and the patient more readily consents to adopt proper treatment.

So it is with the electrocardiograph. Most instances of heart disease can be correctly diagnosed and properly treated on the basis of a careful history and physical examination. How much better this can be done, however, is already indicated by the analogy to the use of the x-ray mentioned above. In addition, we are already indebted to electrocardiography for the correct explanation of certain problems in cardiac function, and we may anticipate further benefits. These have to do with such matters as the forms of the electrocardiogram, voltage as the expression of function of the cardiac musculature, volume output of auricles and ventricles, etc.

Lastly, familiarity with the principles of electrocardiography and the ability to interpret electrocardiograms are great stimuli to clinical observation and correlation. The application of graphic methods to the study of any physiological or pathological process may be expected not only to solve problems that have hitherto been unexplained but also to serve as a fundamental check on our clinical studies.*

CIRCUMCISION PREVENTS SYPHILIS.

By ALEXANDER IRVINE, M. D., McDowell, W. Va.
Former Surgeon and Superintendent, Sheltering Arms Hospital, Hansford, W. Va., and W. Va. Miners' Hospital No. 1, Welch, W. Va.; Surgeon N. & W. R. R.

Acquired syphilis, as a rule, comes from infection through an abrasion on the foreskin, for which you may remove the foreskin by circumcision, so you will have no abrasion. The parts become tough like the skin and are abraded very seldom—I should say in not over five per cent. The Jews hardly ever have syphilis because they have all been circumcised; they follow the Bible, the universal guide for us all.

Syphilis stands next to tuberculosis as a cause of death. I expect national circumcision would prevent forty thousand deaths in the United States each year—half the number of men we had killed in the World War—and, in a few years, would stamp out practically all acquired syphilis in men and women and inherited syphilis in infants, as the women take it from the men and the men from the women—just a circle, but preventing it in one sex would prevent it in the other.

I believe nation-wide circumcision would do more good than all the mercury iodide and salvarsan in the world, many times over. Prevention of the abrasion on the penis is the keystone to the arch in the prevention of syphilis, and the simple surgical operation of circumcision does this. I would like and hope to see its importance brought before the world. "Prove all things; hold fast to that which is good" is the biblical injunction to follow in all matters.

Permanent Organization Effected.

At a reunion in June of the membership of Base Hospital No. 41, which was recruited at the University of Virginia by Dr. William H. Goodwin, for service abroad, a permanent organization was effected, and Dr. Goodwin was elected honorary president. Dr. Dan. H. Witt, of the class of '14, of the University Medical School, and now of New York City, was elected a member of the executive committee.

*Foot Note: The author's paper was illustrated by lantern slides of normal and abnormal electrocardiograms.

Medical Education

The Adoption of the Report of the Commission on Medical Education in Virginia.*

Many and varied have been the expressions in regard to the Commission's recommendation of locating the medical department of the University of Virginia in Richmond. The report of the Commission, giving both sides of the controversy, has been sent to the physicians in Virginia. Those advocating the location of the consolidated school in Charlottesville have carried the question into the political arena and now, not only the medical profession, but the people of the State in general, are flooded with propaganda. To get before the physicians of the State the reasons which influenced those of the Commission voting in favor of Richmond, we deem it only necessary to make a brief abstract, with a few explanations, from the majority report of the Commission; no minority report, up to the present time, having been submitted.

The majority report stated:—

Conditions in Virginia Today.—There are today 2,552 licensed medical practitioners in Virginia, which is less in proportion to the population than is the case in the majority of the other States of the Union. Virginia needs proportionately a larger number of physicians than most of the other States because she is essentially an agricultural State, and she is geographically so formed that many of her sections are difficult of access, due to the western portion being mountainous and the tidewater region being divided by rivers or indented by the sea. Dr. Ennion G. Williams, State Commissioner of Health, who is thoroughly familiar with the situation, states that the number of doctors in the cities is not too large, if it is large enough, and that the rural sections of the State are pitifully undersupplied.

The Local Supply of Physicians is largely dependent on the Medical Department of the University of Virginia, founded in 1827, which has furnished 262 of the doctors now practicing in the State and has this session an enrollment of about 120 medical students; and on the Medical College of Virginia founded in 1838, which has furnished 1,132 of the doctors now practicing in the State and has this session an enrollment of 117 pharmacy, 130 dental and 173 medical students. Both are Class "A" Medical Schools and both are owned, controlled and largely supported by the State.

Some of the reasons why Richmond should be preferred as the location of the school are as follows:

1. Population sufficient to furnish adequate clinical material.
2. Residence of specialists available as clinical teachers.
3. Location of State owned college and hospital buildings.
4. Proximity of headquarters of State and City Boards of Health and other related State and city activities.
5. Opportunity to teach dentistry and pharmacy in addition to medicine.
6. Probability of new sources of financial support.
7. Occupation of field which, if left vacant, would lead to future competition.

If the plan and procedure recommended in the majority report is followed, it then will be the duty and privilege of the authorities of the University of Virginia to determine the plan of organization of the Consolidated School, to provide for its administration and to prepare a budget of income and expenses.

In considering the question of Dr. Flexner's report, it is very interesting to know that Dr. W. S. Crocker, Dean of the University of Texas, wrote us the following, which shows that in 1909 and 1910 Dr. Flexner said that the medical department of the University of Texas should be moved from Galveston to Austin, the seat of the university. In 1920, however, he said that he thought it would be better to move the medical department to a large town so as to get clinical facilities. In 1921 he advocates the medical school in a small town on the campus of the University of Virginia. We wonder what his opinion will be in 1922 or some other date.

"When Dr. Abraham Flexner made his survey in 1909 he advocated in the Carnegie Foundation Report on Medical Education published in 1910, that the Medical School of the University of Texas should be removed from Galveston to Austin, so that it could be united more closely with the main university.

"When he was here in January, 1920, I asked him if he still held that opinion. He replied that he did not; that the advantages of getting plenty of clinical material in a large city are so great that he thought it would be much better if it were moved to a large city like Houston or San Antonio, each of which has a population of 150,000 or more. This gives the opinion of a disinterested and competent observer."

*Sent this journal for publication by Drs. McGuire and Tucker.

The authorities of the University of Colorado, considering whether to locate the medical school at the seat of the University at Boulder or at Denver, make the following very pertinent statement:

"Twelve State Universities have preferred to separate their medical schools by distances varying from 10 to 300 miles from their campus in order to gain clinical facilities, compared with only four which have attempted to carry clinical teaching in a small city in order to retain the school on the campus. The dates of organization of these four schools are as follows: Virginia, 1827; Michigan, 1850; Vermont, 1853; Iowa, 1869—dates when medical education differed materially from that of the present day and the competition of other good schools was far less. Of the four, Michigan and Iowa only are strong schools. It is believed that it may be fairly held that if a decision must be made between **university atmosphere** on the one hand and **extensive teaching facilities** on the other, the experience of other schools is overwhelming that a medical school can reach a high standard of excellence without the former, but cannot rise above mediocrity without the latter."

Much has been said about the University of Michigan but let us consider the question of obstetrical cases alone.

These cases may, indeed, be transported, but with what degree of satisfaction may be gathered from the following quotation from the Dean of the University of Michigan Medical School, which is held up as the finest example of a small town school.

"The reason why I most regret that the university is not located in Detroit is our inability to at one and the same time utillize the clinical material and serve the people of Detroit. In Detroit we might have had long ago great lying-in wards where our students would have received valuable training and at the same time the poor of the city would have been served. In order to overcome this special difficulty we have been compelled at considerable expense to take expectant mothers some weeks before confinement and keep them for some weeks afterwards."

Each student of the Medical College of Virginia is required to personally deliver twenty cases, before he can apply for graduation. If the State of Virginia had to pay for hospital care of each case for from five to eight weeks, the expense of this clinic alone would consume an enormous appropriation.

The Virginia State Board of Medical Examiners was consulted and Dr. J. W. Preston, Secretary, of Roanoke; Dr. H. U. Stephenson, of Toano; Dr. P. W. Boyd, of Winchester, and Dr. P. St. L. Moncure, of Norfolk, all gave very strong statements favoring Richmond as the location of the consolidated school. These statements together with that of Dr. Ennion G. Williams, State Health Commissioner of Virginia, should bear overwhelming weight in favor of Richmond because they are by men who know the necessities of the State of Virginia and the opportunities and future of medical education in Virginia.

The report of the majority of the Commission advised location in Richmond for further reasons, among which were:—

That the Richmond plant is larger and more complete.

That the dental and pharmacal schools should be continued and could only be continued in Richmond.

That besides having 247 students in dentistry and pharmacy, Richmond already has 173 students in medicine, while Charlottesville has none in dentistry and pharmacy and only 130 in medicine.

That Richmond has already over 500 hospital beds for clinical purposes as compared with 150 at the University.

That the University would gain, and the State would gain, some $800,000 worth of property by locating the school in Richmond.

That Richmond and its environs furnish, without expense, adequate clinical material, and that to get clinical material in Charlottesville would require great expense and legislation.

That location in Richmond would give the advantage of close contact with the City and State Boards of Health, their laboratories, private hospitals, city hospitals and Public Health work.

That Richmond is already a great medical center and the University here could obtain clinical teachers of experience and reputation in all branches, while there is practically no hope of developing the various specialties in Charlottesville.

That a large city like Richmond possesses great cultural and religious opportunities and that Richmond as well as being a medical center is also an educational center on broad lines.

That there are no great administrative difficulties in having the medical department of the University in Richmond as it would be a part of the University, managed and controlled in every way by the University

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and *that the idea of dismemberment is a fantasy.*

That, beside hospital cases, Richmond has a tremendous ambulatory clinic of acute cases and injuries which could not possibly be obtained in a small town.

That, if the school is in Richmond, it will be larger and more physicians will be furnished to the State.

That the University would have greater influence by locating its medical department in Richmond because it is the seat of the State government, the largest city of the State, and is recognized as the financial, industrial, political, medical and educational center of the State.

That location in Richmond would probably induce financial help in that the citizens of Richmond have already given more than half a million to medical education in Richmond.

That it is desirable to have only one medical school in the State, and that, if the University of Virginia's medical school is not located in Richmond, some proprietary or other institution would be established.

That the cost of medical education to the student is less in Richmond by far than in Charlottesville, and, that this enables the poor boy to study medicine, and further, that opportunities are offered, and are now taken advantage of by the students of the Medical College of Virginia, to get work which will help them to pay their way through school.

It would be an utter impossibility to get all of these advantages for a small town like Charlottesville and the expense of building up a clinic for the school by forced methods, and the legislation necessary to maintain it, would be impractical and unwise.

The Medical College of Virginia already has the loyal support of 1,132 physicians, 386 dentists, 376 pharmacists, as alumni. The University of Virginia has only about 262 medical alumni in the State.

Under the control of the Medical College of Virginia the following hospitals are available:

The Virginia Hospital, completed in 1893, accommodations for 240 patients, valued at $96,135.00.

The Memorial Hospital, completed in 1908, accommodating 181 patients, has an assessed value of $193,800.

The Dooley Hospital, completed in 1920, accommodating 50 patients, assessed value of $60,000.00.

St. Philip's Hospital, completed in 1920, accommodating 188 patients, assessed value of $203,800.00.

Besides this the old Medical College of Virginia building, completed in 1845, has an assessed value of $66,000.00 and the new teaching building, one of the best and most thoroughly equipped schools, completed in 1912, has an assessed value of $173,500.00.

Coming to the question of whether the school could be operated financially in Richmond, we refer again to the great authority of Dr. Pritchett, who wrote, under date of February 24, 1921, as follows:—

"In my office in New York, we have rather complete statements as to the incomes of the various medical schools of the country. The stronger schools are spending from $150,000 to $350,000 annually; this is exclusive of hospital support. I should say that a total of $185,000 a year ought to form the basis of a sound and fruitful modern medical school. Starting from this income no doubt a sum requisite for increasing need would be provided."

It is essential that Virginia should have a large and efficient medical school to furnish her people with adequate professional services to maintain them in health and to cure them in sickness. She cannot trust other States to do for her what is plainly her duty to do for herself. It is not a theory but a condition that confronts the State. It is, therefore, a question, not primarily of cost, but ultimately of economy and efficiency, that has to be considered. The wisdom of consolidating the two State supported schools is universally accepted, and if the new school is to be located either in Richmond or Charlottesville, it is obvious that under existing circumstances it should be located in Richmond where it can be done at less original expense and with greater promise of future growth and development.

The final report of the Commission on Medical Education was as follows:

1st. There should be one State-supported medical school.

2nd. It should teach medicine, dentistry and pharmacy.

3rd. It should be located in Richmond.

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4th. This school should be formed by the merger of the Medical College of Virginia with the Medical Department of the University of Virginia through the unconditioned transfer of the property of the Medical College of Virginia, subject only to the existing liabilities.

5th. The medical school so formed should be a *bona fide* department of the University of Virginia, having the same academic relationship to the University of Virginia as that borne by the present Department of Medicine, and the task of organizing this new medical school in all its details should be entrusted to the authorities of the University of Virginia.

We believe that it is the duty of the medical and dental profession and of the pharmacists of the State to vigorously uphold the majority report of the Commission and we call upon them to do so. We also ask that they see that their representatives also uphold the majority report of the constituted authorities appointed to investigate the question of Medical Education in Virginia.

Signed: STUART MCGUIRE, M. D.
BEVERLEY R. TUCKER, M. D.

Letter From the Leading Educational Expert in America.*

Dr. Henry S. Pritchett, President of The Carnegie Foundation and one of the greatest experts in educational matters in America, urges that the one State-supported medical school be located in Richmond. He writes as follows to Dr. S. C. Mitchell:

To DR. S. C. MITCHELL,
Richmond, Virginia.

I have your letter of June 6, signed by yourself and three other gentlemen associated with you and asking my personal views as to whether it is wiser to permanently develop the Medical School of the University of Virginia at Charlottesville or at Richmond. My letters to Dr. Hough, and particularly those of the 21st of December and of the 20th of January, would seem to make clear my position.

I have tried to set forth in these letters that, given an unlimited amount of money, a strong medical school could be developed in either location, but that such a solution of the question left out of view matters of general policy which seem of primary importance.

From the standpoint of administration, it is a simpler question for the University of Virginia to develop a medical school on its own campus. Such a school would probably remain of the type of the present excellent but limited institution. Ninety-seven miles away is the city of Richmond. If the University of Virginia shall have free hand to conduct its medical department in that city, the development of a medical school on sound university ideals is an entirely feasible undertaking. But, in addition to this, certain very important facts of public significance have to be reckoned with.

Richmond is not only the capital of the State and its chief commercial center, but it has a historical connection with the South and Southwest such as few cities possess. It has a large community of medical practitioners whose standards of scientific aspirations approach each year more closely those of modern science. The support and co-operation of such a body of medical practitioners is one of the great sources of strength of any medical school.

Furthermore, Richmond has hospitals and clinical facilities such as are developed only in cities of considerable size and while these do not at present represent the most modern relations between a medical school and a hospital, the possibilities of such co-operation are indefinitely great. It may, I think, be safely assumed that there is to be a medical school in Richmond, and that such a school will in time gather to itself the support of this great community. Furthermore, I think it may equally certainly be assumed that the medical students from this region will in the long run be attracted to the city of Richmond rather than to Charlottesville.

Taking into account, therefore, all these considerations, it seems to me that the opportunity of the University of Virginia to serve the cause of medical education and to take a commanding position in the training of medical practitioners in the region in which it stands, lies in the development of its medical school in the city of Richmond. In my judgment, this development can be had without the sacrifice of scientific relations with the university or of scholarly ideals.

There is one other matter not to be forgotten in the development of an institution like a medical school. The reaction of a group of

*Published at the request of the Committee for the Adoption of the Report of the Commission on Medical Education in Virginia.

highly trained men toward a community depends in large measure upon the richness and variety of the life of the community in which they work. A group of able men conducting a medical school will have in a community such as Richmond, relations on the whole more fruitful and more important than they are likely to have in a smaller community, and the result of such relations will have far greater influence upon questions of public health and hygiene and of preventive medicine, which in the future are to form a larger and larger part of medical teaching. The opportunity to develop a medical school in such a center seems to be a distinctly greater opportunity for the university. I am very sincerely yours,

HENRY S. PRITCHETT.

Public Health

In The Tuberculosis Field.

MORE LIGHT ON THE SPAHLINGER CURE.

Dr. Th. Stephani, writing from Montana, Switzerland, makes this contribution on the Spahlinger treatment for tuberculosis, to which reference has been made in this department before:

"As you have seen, M. Spahlinger of the Bacteriotherapeutic Institute of Carouge, Geneva, has been engaged in developing certain specifics for the cure of tuberculosis. Some of these are antitoxic and bacteriolytic serums; others are organic ferments and some are vaccines.

"The antitoxic serums and also the ferments are used for febrile cases, those of doubtful outcome, or in conjunction with the introduction of vaccines.

"The vaccines are tuberculins which are intended to vaccinate the organism more effectively than the tuberculins used heretofore. These vaccines are to be used for those cases which have sufficient strength, with little fever, yet with indications that the tuberculosis will not spontaneously effect a cure.

"The bacteriolytic serum is especially indicated in disease of the bone.

"It will be probably six months before any of the Spahlinger specifics are available. M. Spahlinger, having used all his fortune in his research work, is not able at this time to proceed with manufacture. His studies are scientific exclusively, and he does not sell his serums and vaccines, which have always been given free. Consequently he is not ready to furnish them on a commercial basis."

MENACE OF BOVINE TUBERCULOSIS.

"Scientific investigations made by various commissions and private workers establish beyond cavil that among children a considerable percentage of cases (of tuberculosis) is due to the bovine type, probably introduced by consuming milk of tuberculous cows."

This is an extract from a report by Dr. J. A. Kiernan, Chief, Tuberculosis Eradication Division, Bureau of Animal Industry, U. S. Department of Agriculture. That bovine tuberculosis may be communicated to man is an undisputed fact now and has been since the cause of the disease was determined.

One case reported by Dr. Kiernan follows:

"While recently conducting the regular tuberculin tests around Santa Rosa, Dr. Whitehead condemned two cows which had reacted to the test. When he informed the owner of the results of his test, she began to cry. Thinking that her cause for grief was the loss of the two cows, he tried to console her with the statement that the cows were diseased and she ought to be glad to know it. Whereupon she promptly replied: 'That isn't what I am crying for. I have a baby nine months old, and three months ago the doctor operated upon her for tuberculosis of the hip. As a result my baby is now in a plaster cast. My baby was fed entirely upon the milk from these two cows.'

"Investigation developed that neither parent is tuberculous, nor had they ever had tuberculosis in either of their respective families. Moreover the baby had never been away from home."

Dr. Kiernan concludes that the suppression of communicable diseases among meat producing animals is essentially a matter for public health consideration, as well as for the preservation of a healthy animal husbandry. Bovine tuberculosis is communicable to human beings and it matters little the per cent. to which the disease is transmissible. If only a few children become tuberculous from consuming milk infected with tubercle bacilli, it is the duty of society to prevent the distribution of the disease to that extent. However, the evidence at hand, accumulated by various workers in different parts of the world, has clearly

demonstrated that the number of human beings showing an involvement from bovine source is not an inconsiderable percentage. The campaign of controlling tuberculosis, whether it be among the people or the animals, should be conducted along co-operative lines. Anti-tuberculosis associations—national, state, and municipal—can and should assist by various ways in the campaign which is now being conducted throughout the nation in the suppression of tuberculosis among cattle and swine.

B. L. T.

Correspondence

Senator Trinkle's Record With Regard To The Medical Profession.

RICHMOND, VA., JUNE 3d, 1921.

TO THE EDITOR:

In a very excellent editorial that appeared in the *Virginia Medical Monthly* a short time ago, the commendable advice was given to the doctors of Virginia to take a more active part in politics. The spirit of the editorial seemed to indicate that it was not for the sake of politics, but in order to have offices held by as high type of men as it was possible to secure.

The medical profession of Virginia is peculiarly responsible to the people of Virginia for the health situation in this State. While under ordinary conditions it would probably be improper to take any very active stand in the present campaign of the two candidates for the office of Governor of Virginia, one of the candidates has a record which is so inimical to the doctors and to progressive and scientific medicine and surgery, that it should be fully exposed. There were two special medical license bills introduced in the last two legislatures; one, Senate Bill No. 55, session of 1918, which gave a right to Arthur de Collard to practice Poropathy without standing the State Board, and the other, Senate Bill No. 271, session of 1920, which was introduced to permit a "healer" to practice medicine without an examination. In the former bill, Senator Trinkle, while not the patron of the bill, was probably its most active advocate and, when it had been defeated, the bill was revived and passed through the effort of Senator Trinkle, as shown in the records. Senate Bill No. 271 was defeated in spite of its support by Senator Trinkle.

Senate Bill No. 55 was earnestly opposed by a committee of doctors who appeared before the Senate and House Committee. The chairman of the committee of doctors was Dr. E. C. L. Miller and other members were Doctor Stephenson, of Toano, Doctors Murat Willis, Paul Howle, A. L. Gray, and many others. In spite of the earnest efforts of these gentlemen, the bill was passed, as shown by the record.

De Collard claimed to be a Corsican and a cousin of Napoleon. He is undoubtedly a foreigner. He said he graduated at several European universities but as for diplomas, he could not produce them, claiming that they had all been burned. He would not answer the simplest question on the elements of medicine and surgery because he said that the doctors were jealous of him and he did not propose to put himself in their power. His whole attitude could be readily judged by any man of common sense, and yet a bill for a foreigner of this type was taken up and pushed through over the earnest protests of the representatives of the medical profession.

I have no political or other axes to grind, but I feel if the medical men of Virginia will support for governor a man with Senator Trinkle's record, we have no right to complain of any indignities or lack of respect that may be shown us when he is in office. If, on the other hand, we earnestly oppose him, even though he wins, we will receive more respect and will certainly have more respect for ourselves than if we made no effort to resent his candidacy.

Can any one think that a man with Senator Trinkle's record can be seriously interested in maintaining the health of the people of Virginia, in upholding the State Board of Health or the standards of the Medical Examining Board, or can any one imagine that a man with his past record can give cordial co-operation to the management of the numerous State hospitals?

Of course, a candidate for office has a great many explanations but there is probably no truer saying than, "By their fruit ye shall know them."

The record of Senator Trinkle is as follows:

The record on Senate Bill No. 55, being "A bill to define and regulate the practice of Poropathy and Manipulative Surgery, to provide license of practitioners thereof, and to provide for a penalty for the violation of this act, and for other purposes."

On Tuesday, January 15, 1918, the above bill was introduced in the Senate by Mr. Wendenburg,

by request, and referred to the Committee on General Laws (Journal of the Senate, p. 55).

Mr. Trinkle was not a member of the Committee on General Laws. Manual of Senate, 1918, p. 10.

The bill in question as introduced read as follows:

Senate Bill No. 55.

Patron, Mr. Wendenburg, by request.

"A bill to define and regulate the practice of Poropathy and Manipulative Surgery, to provide license of practitioners thereof, and to provide for a penalty for the violation of this act, and for other purposes.

1. Be it enacted by the General Assembly of Virginia, That the system and practice of Poropathy and Manipulative Surgery is hereby defined to be a new branch of therapeutics, and is the use and employment of medical manipulation and absorption through the pores of the skin and the mucous membrane, without medicine taken through the stomach or the use of the knife, and the use and employment of healing and curative agencies and lotions, applied directly to the diseased organs and to the nerves controlling those organs, through the pores of the skin and mucous membrane, which are opened by medical manipulation, and which immediately reach the disease or ailment and drive therefrom the poisons of the disease or ailment through the eliminating organs of the human body, and by this process, heal and cure the following diseases and ailments: Neurasthenia or nervous prostration, internal cancers, stomach or otherwise; tumors, internal or otherwise; kidneys, liver, uterus, ovaries and all obscure ailments, adipose tissue, rheumatism, locomotor ataxia, cerebro-spinal meningitis, St. Vitus dance, epilepsy, paralysis, tuberculosis of the joints, heart trouble, fatty degeneration, and valvular weakness; and also adjust, heal and cure broken bones, sprains, dislocations, displacements of muscles and joints, slipping of cartilages of knees or other joints, spinal injuries, breakages or displacements of small bones of legs and feet; and supplementary system and science of physical culture, by which every muscle of the human body is reached, developed and strengthened without the aid of any apparatus; which treatment and medical manipulation consist of poropathy, manipulative surgery, massage, physical culture, dieting, herb-lotions and salves, also including the treatment and cure of diseases or ailments through the pores of the skin and the mucous membrane of the human body as above mentioned and specified.

2. That any person who shall apply to, and present and submit to a commissioner of the revenue in any city or county of this State, who is authorized to issue licenses, a certificate in writing, sustained by affidavit or affidavits showing that he is of good character and that he is versed in the practice of poropathy and manipulative surgery, shall receive from the said officer a license issued by him, which shall entitle the holder thereof to practice poropathy and manipulative surgery, and as above defined, in this State for a period of twelve (12) months from the date of such license, for which the holder thereof shall pay to the treasurer of said city or said county, a license tax of ten dollars ($10.00) per annum.

3. That any violation of the provisjon of this act shall be a misdemeanor, and shall be punished by a fine, not less than fifty dollars ($50.00) nor more than one hundred dollars ($100.00) or by imprisonment of not less than thirty (30) days, nor more than six (6) months in jail, or by both fine and imprisonment.

4. That nothing in this act shall be construed to apply to duly licensed physicians, to persons authorized to practice optometry, osteopathy, or chiropractic, under the laws of the State of Virginia, nor any other practitioner of any medical science, permitted and licensed under the laws of the State of Virginia.

5. In order that this act may be given effect as soon as practicable, an emergency is declared to exist, and this act shall be in force from its passage."

The Journal of the Senate, March 2, 1918, shows that the foregoing bill came up upon its second reading on that date with committtee substitute and amendments to substitute. The committee substitute was as follows:

An act for the relief of Arthur de Collard and to authorize him to practice poropathy massage and manipulative surgery in the State of Virginia.

Whereas, Arthur de Collard has been engaged in the practice of poropathy and manipulative surgery in the State of Virginia for three years or more; and,

Whereas, it appears that a large number of respectable citizens of this State have been treated by the said Arthur de Collard and greatly benefited thereby and desire that the said Arthur de Collard be allowed to continue the practice of poropathy and manipulative surgery in the State of Virginia.

1. Therefore, be it enacted by the General Assembly of Virginia, That Arthur de Collard be, and he is hereby authorized to practice poropathy massage and manipulative surgery in the State of Virginia.

2. In order that this act may be given effect as soon as practicable, an emergency is declared to exist, and this act shall be in force from its passage.

The committee amendment to the substitute, proposed by Senator Conrad, was as follows:

"Committee amendment to substitute for Senate Bill No. 55. Sec. 1, line 3, at the end of line strike out a 'period' and insert a 'comma' and add the following: 'Provided that the said Collard shall first apply for and successfully stand an examination on anatomy and materia medica before the State Board of Medical Examiners.'"

Dr. Gravatt proposed an amendment to the committee amendment next above quoted, as follows:

"After the words 'materia medica' insert 'therapeutics, diagnosis, pathology.'"

Dr. Gravatt's amendment was rejected. Mr. Trinkle offered the following amendments:

1. Striking out all of the language of Sec. 1 following the word "lotions" in line 8.

2. In Sec. 2 strike out the words "for which the holder thereof shall pay to the treasurer of said city or said county a license-tax of ten dollars ($10.00) per annum."

These amendments were agreed to.

Senator Strode offered an amendment as follows:

After the word "license" in Sec. 2, line 10, insert "provided that no person licensed under this act shall use or advertise himself as having the title of doctor."

This amendment was also agreed to. The committee amendment to the substitute was rejected and the committee substitute was rejected. Thereupon Mr. Trinkle moved to dispense with the read-

ing of the bill as required by Sec. 60 of the Constitution, which was agreed to. Ayes 18—Noes 4, Mr. Trinkle voting in the affirmative.

The original bill carried an emergency clause which required a four-fifths vote for its passage. The question then recurring on the passage of the bill, the bill was rejected for failure to receive the four-fifths vote required. Ayes 17—Noes 7, Mr. Trinkle voting in the affirmative, Dr. Gravatt and Dr. Hening being recorded in the negative.

Mr. Mapp moved to reconsider the vote by which the bill was rejected, which was agreed to. Mr. Trinkle then offered an amendment striking out the emergency clause, section 5 of the bill, which was agreed to. The effect of this amendment was to require only a majority vote for passage instead of the constitutional four-fifths. The bill was then passed. Ayes 16—Noes 6, Mr. Trinkle being recorded in the affirmative, Doctors Gravatt and Hening in the negative.

Mr. Trinkle moved to reconsider the vote by which the bill was passed, which was rejected. (Journal of the Senate, 1918, p. 563).

Senate bill No. 271 was a bill "To authorize the State Board of Medical Examiners to grant to J. Plummer Baldwin a certificate to practice drugless methods of healing in this State." On Saturday, Feb. 21, 1920 (Senate Journal p. 356), Senator Cannon moved to indefinitely postpone the consideration of this bill, which would have the effect of killing it. The vote on the motion of Mr. Cannon was—yeas, 13; nays, 10. Mr. Trinkle was recorded in the negative.

It seems, therefore, that Mr. Trinkle's friendship for "healers" is not confined to the single instance of de Collard.

Further comment upon this record is superfluous.

J. Shelton Horsley, M. D.

Defense of Senator Trinkle by Doctor Hening.

Jefferson, Powhatan Co., Va.
June 27, 1921.

To the Editor:

I have learned that your paper, which is the official organ of the Medical Society of Virginia, will print in its next issue a letter from Dr. J. Shelton Horsley, attacking the Honorable E. Lee Trinkle, who is now a candidate for Governor, for voting for what is known as the de Collard Bill, and urging the profession to do all it can to defeat him on that account.

As a member of the medical profession and also a member of the Senate of Virginia I desire to register my protest against this attack on Mr. Trinkle and the use of the columns of your paper, the official organ of the Medical Society of Viginia, for this purpose. The bill passed the Senate by a vote of 17 to 6 and the House by 56 to 10, after it had been amended so as to remove many of the objections. There were many important measures of a public nature, backed by the Medical Society of Virginia and the State Board of Health, which Senator Trinkle advocated and voted for, such as the following:—

To provide for public health nursing and medical inspection of school children.

To levy a one mill tax for the treatment and eradication of tuberculosis.

A joint resolution to appoint a commission to investigate the subject of preventable diseases.

To appropriate money and establish a hospital for the treatment of crippled and deformed children.

For prevention of blindness in children.

Requiring the use of sanitary towels in public places.

This attack seems to me to be not only unfair and unjust to Senator Trinkle, but to the medical profession. It puts us in the light of singling out one error in a man's public career and calling for his defeat for the high office of Goveror because of that error, without taking into consideration his splendid record of service to the State and particularly to the medical profession and the State Board of Health during his entire legislative career. Further, it looks like playing politics rather than standing up for the ethics of the profession, because Senator Trinkle is singled out and no attack is being made on the other Senators who voted for the bill, two of whom are now candidates for Lieutenant-Governor, or the members of the House who voted for it, most of whom are candidates for re-election, nor on Governor Davis, who approved the bill and who has announced his candidacy for United States Senate.

I am authorized by Dr. Ennion G. Williams, State Health Commissioner, to state that he thinks it unjust to Senator Trinkle and unfortunate for the profession that this attack should be made and to state further that Senator Trinkle has been loyal, able and effective in supporting the measures for the betterment of the health of the people of the State.

T. S. Hening, M. D.

Practicing Physician and Senator from 16th Senatorial District.

Secretary's Announcement

Increased Cost of Liability Insurance.

An increase of two hundred per cent. in the cost of Physicians' Liability Insurance has been made by the companies writing policies of this nature within the past three months. The companies claim that they have been losing money at the old rate of fifteen dollars for the regular five to fifteen thousand dollar policy. This increase comes at a time when every one is feeling the business depression now on us, a depression which affects physicians as keenly as any other class or profession.

Assuming that the companies are correct, this increase means that more people are suing physicians for real or fancied damages—possibly more are getting verdicts. It is doubtless a continued development of the epidemic of hold-ups and highway robberies with which our entire country has been afflicted recently. At any rate it is a matter for serious consideration when the cost of protection goes from fifteen dollars to forty-five dollars at one jump.

The Medical Association of Indiania has met this problem and solved it in a most satisfactory way, according to a report made at the meeting of State Secretaries in Chicago, last fall, by Dr. Chas. N. Combs, Secretary of that organization. They have established a Legal Defense Fund costing each member one dollar annually. With this money the best legal assistance obtainable is furnished any member of that society against whom a liability suit is brought. No insurance is provided but, with the entire state organization backing each member, it is practically impossible for the plaintiff to get a verdict. So successful have they been that they have accumulated a surplus. The above statements are made from memory. A detailed statement by the Secretary of the Indiana Society has been requested and we hope to have it for an early issue.

Use Your Library!

Announcement of the establishment of our Circulating Medical Library has aroused considerable favorable comment from the members of the State Society and the actual use of it during the month of June has demonstrated the need of such resources. Members of the Society should keep in a convenient place the lists of books available for distribution. Additions to the library will be listed in our Book Announcement column from time to time.

The library is a practical one. We prefer that the books be worn out in service rather than they should become receptacles for dust and cobwebs in this office. Send for what you want and, if it is out, your name will be placed on a waiting list to receive it upon return. If you so desire, you may name a first and second choice.

We hope to develop this library to such proportions that we can place in the hands of our members for a reasonable length of time any medical book they may wish to read. Such a service will not only help you keep up with the progress of your profession but also will enable you to select with greater care the books you wish to place permanently in your own library.

Financing such a proposition will not be difficult if we can secure the co-operation of the members of the Society. Practically all publications make arrangements with other periodicals for securing subscriptions in clubs at reduced rates. We have made similar arrangements and are in a position to take subscriptions and renewals for practically all magazines published. The commissions for handling this business will be applied to building up your library. Members of the society should remember this when notified of the expirations of their subscriptions to any magazines and should let this office have the renewals. Should all members of the Society give us this business, practically every new book on medicine and surgery of value can be placed in the library of the Society to be used by all of our members.

G. H. WINFREY, *Secretary-Treasurer.*

Proceedings of Societies

The Augusta County Medical Association, Inc.,

Held its regular bi-monthly meeting in Staunton on June 8, under the presidency of Dr. H. M. Wallace, of Greenville. Clinical cases were reported by Dr. M. J. Payne. A symposium on Exophthalmic Goitre was participated in by Drs. H. M. Wallace, J. F. Fulton, Wilbur M. Phelps and R. P. Bell.

Drs. J. F. Hubbard, of Waynesboro, and J. F. Fulton, Staunton, were elected to membership.

Dr. Frank Stafford, of Blue Ridge Sanatorium, Charlottesville, gave an interesting talk and heartily approved of the suggestion made by the president, who is also the Augusta County Health Officer, that Staunton and Augusta have a tuberculosis hospital. A committee was appointed and appropriation made to investigate and have punished all illegal practitioners in Augusta County.

In connection with health matters in Augusta County, free clinics have recently been held in various localities of the county by the Virginia Tuberculosis Association, and much interest was manifested in them.

The Norfolk County Medical Society,

At its annual meeting in Norfolk in June, elected the following officers for the ensuing year:—President, Dr. C. J. Andrews; Vice-President, Dr. Julian L. Rawls; Secretary-Treasurer, Dr. Lockburn B. Scott, all of Norfolk City.

Five members were selected to represent that Society at the Lynchburg meeting of the Medical Society of Virginia, October 18-21. They are Drs. C. J. Andrews, Southgate Leigh, E. C. S. Taliaferro, Julian L. Rawls and Frank Hancock, all of Norfolk.

The Fredericksburg (Va.) Medical Society.

At the regular monthly meeting of this Society on July 1, under the presidency of Dr. W. A. Harris, of Spotsylvania, papers were read by Drs. Tom A. Williams, Washington, D. C., and Garnett Nelson, Richmond, both of whom were elected to honorary membership.

The election of officers for the ensuing year was as follows:—President, Dr. Roderick Dew, Woodford; Vice-President, Dr. F. C. Pratt, Fredericksburg, and Secretary-Treasurer, Dr. J. N. Barney, Fredericksburg.

The Truth About Medicine

During May the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

The Gilliland Laboratories:
Acne Mixed Vaccine—Gilliland.

Hoffmann-LaRoche Chemical Works:
Pituglandol.

Lederle Antitoxin Laboratories:
Cholera Vaccine (Prophylactic)—Lederle.
Plague Vaccine (Prophylactic)—Lederle.

H. A. Metz Laboratories:
Silver Salvarsan.
Silver Salvarsan 0.05 Gm. Ampules.
Silver Salvarsan 0.1 Gm. Ampules.
Silver Salvarsan 0.15 Gm. Ampules.
Silver Salvarsan 0.2 Gm. Ampules.
Silver Salvarsan 0.25 Gm. Ampules.
Silver Salvarsan 0.3 Gm. Ampules.

Seydel Manufacturing Co.:
Guaiacol Benzoate—Seydel.

Book Announcements

The Principles of Therapeutics. By OLIVER T. OSBORNE, M. D., Professor of Therapeutics, Department of Medicine, Yale University. 8vo. 881 pages. Phladelphia and London. W. B. Saunders Company. 1921. Cloth. $7.00 net.

Osler may be regarded as the Sampson that wrecked the temple of drug credulity; also he may be accounted the idol of the succeeding age of therapeutic nihilism. Now we are in the midst of a new era of simple and practical therapeutics, an era in which knowledge has supplanted credulity on the one hand and skepticism on the other, and in which fewer drugs are being used and better treatment given.

Dr. Osborne's book is a timely production by an acknowledged authority. In addition to a section of 300 pages on drug therapy, there is a most interesting discussion of "The Endocrine Glands and Organotherapy," in 114 pages. As a preliminary to the chapter on "Vaccines and Serums," the author gives a comprehensive statement of immunity, allergy, protein poisoning, anaphylaxis, giving the cutaneous test for protein idiosyncrasy, recently described in the AMERICAN JOURNAL OF DISEASES OF CHILDREN. The reviewer can testify to the simplicity of this test and its efficacy in pointing the way to relief of some distressing cases of bronchial asthma. Space forbids a more detailed statement but we feel safe in saying this book embraces at least a concise statement of everything worth while on up-to-date therapy. H.

Physical Diagnosis. By W. D. ROSE, M. D., Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas, Little Rock, etc. Second Edition. St. Louis. C. V. Mosby Company. 1921. 8vo. 736 pages with 309 illustrations. Cloth. $8.50 net.

Tuberculosis and How to Combat It. A Book for the Patient. By FRANCIS M. POTTENGER, A. M., M. D., LL. D., F. A. C. P., Monrovia, California. St. Louis. C. V. Mosby Company. 12mo. 273 pages. Cloth. $2.00 net.

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AGNES V. EDWARDS, Editor's Assistant and Assistant Manager.

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Editorial

Doctors and Nurses.

Hearty co-operation between the doctor and the nurse is essential to the welfare of their patients. The physician and those who are entrusted with carrying out his instructions should be in full accord. Patients and their relatives should realize that remissness on their part is a serious handicap to the medical attendant. The failure of the doctor to attain his ends is not infrequently due to the ignorance, prejudice, superstition, and interference of others, while the adverse criticism he occasionally receives may be unreasonable and unjust. It is evident that the demeanor of the patient and his family towards the doctor and nurse has an important bearing upon their management of the case.

There have been complaints from doctors that nurses were selecting their cases: that they were too professional, and that they were inefficient: patients and their families, also, have stated that nurses were unsatisfactory in their attentions to the sick, and that they were unreasonable and too independent in the matter of their charges.

Nurses are no more infallible than other classes of workers, and the charges above mentioned could be more or less sustained. If nurses forget that their service involves risk, self-sacrifice, and the subordination of dollars and cents to the ideals of one of the highest, noblest, and most useful of callings, they have probably made a mistake in choosing their vocation. It is a tax upon a doctor's patience to lose time in the effort to secure nurses who are selecting their cases, and who are unwilling to incur danger. If the nurse fails, in her ministrations, to throw her heart as well as her mind into her work, the patient and the doctor are both sufferers. If her limited knowledge of medicine tempts her to prescribe, or to offer suggestions to the physician, the consequences are evident. If she is so professional as to shirk some of the humbler duties of her vocation, her work is only half accomplished. Inefficiency, ignorance, or carelessness, may prove disastrous to those for whom she cares. If the fees are excessive, or if no consideration be shown to those who are unable to pay a reasonable fee, the nurse becomes an icicle or a money-making machine.

The private nurses of this city have recently held a meeting in which these matters were freely discussed. The consensus of opinion was that there was some ground for the complaints referred to, and that reforms ought to be made.

But there are two sides to all questions, and nurses have their grievances. Patients and their families may be at fault in the treatment of those whom they employ. The nurse is not a menial. She requires good and sufficient food, and a requisite amount of rest, in order to have a clear mind and steady hand. Like the rest of us, her expenses have to be met, and her fees should be promptly paid. We presume that the fees for nursing are regulated by the Nurses' Association; and, bearing in mind the exactions of their work, we can hardly regard the charges as unreasonable. The pay of a nurse engaged on a single case is rarely supplemented by outside additions. It may not be allowable to cut rates, but there are instances in which the nurse is only a humanitarian and gives her time without compensation.

The attitude of the doctor to the nurse is important, for upon this, in a great measure, depends the attitude of the patient and his family. The physician who regards the nurse as a slave instead of a co-worker cannot be surprised at not receiving the service which he expects. A nurse is still a woman, and a delicate and just consideration for her feelings will

go a long way in bringing out her best qualities. Moreover, she will always appreciate kindness and a word of encouragement, with a due regard to the respect and deference which women should always command.

If the hardships to which nurses are subjected, and to which the writer's attention has been called, be true, it is easy to explain why a number of nurses are becoming dissatisfied with private work and are preferring to take cases in the hospitals. It is stated by the Secretary of the State Board of Examiners for Nurses that the number of young women entering the training schools is greater than in war times, but that the hospitals and community positions are attracting a good many of the graduates. As it is, the general ranks available for private duty are thinner than they used to be. The call of the office, with better hours and pay, has been heard and answered by many who might otherwise have entered the hospital training schools. It is more difficult to secure good nurses now than in former days. The doctor and the public should do their part in seeing that the trouble is corrected and not increased. Nothing should be left undone to uphold and swell the ranks of the nursing profession.

The life of the conscientious nurse is not an easy one. Her broken health and shattered nerves bear witness betimes to this truth. Under certain conditions, she is justified in selecting her cases, while the defects laid at her door will often disappear when the disadvantages under which she labors are removed. We need to get away from the cold materialism of the present times and to throw every encouragement in the path of those who are engaged in the effort to uplift humanity and minister to its physical needs. Whether at the bedside, or engaged in social, community, or executive work, the nurse is a valuable asset to the public; nay more, she is a necessity. Her reward cannot be measured in silver and gold. Let us be more and more impressed with the fact that in making a living she is ennobling and enriching her own life, as well as adding to its usefulness. Let her vocation be made as attractive as possible, and her rewards be commensurate with the self sacrifice and labor which her duties entail. Then will her life be "clarior e tenebris," her numbers will be increased, her influence widened, and her assistance to patient and physician materially enhanced.

As regards the connection between the social position of the nurse and the treatment she receives, a few words may not be inappropriate. Not all nurses can trace their descent to royalty; but the large majority of those who cannot lay claim to coats-of-arms are, nevertheless, by reason of education and association, entitled to a recognition of the qualities of mind and character which are the real makers of blue blood. The possessors of inherited or acquired wealth, and the aristocrats, may be discrediting themselves or vitiating their blood when looking down upon the wage earners. There are few who do not have to work in one way or another for a support; and all respectable work is honorable. Nurses are not blameworthy for declining to work where their social rights and prerogatives are not recognized.

When the patient and the members of his family, the doctor, and the nurse measure up to their obligations and make a practical use of the golden rule, all of them will become beneficiaries. May the breaches be closed up and not widened; for, while there may be no occasion for the wail of the pessimist or alarmist, there is a need for radical changes in order that a shortage of nurses may be averted.

William S. Gordon, M. D.

The Location.

The location of the new medical department of the University of Virginia is the big question before the profession in Virginia. Both sides have agreed on all of the other main points involved in the creation of a modern State-supported medical school as a department of the University of Virginia.

You have, no doubt, made up your mind and formed your opinion based upon your ideas of what a modern medical school should be; after a consideration of the arguments submitted to the public by the advocates of Richmond and Charlottesville, and from your own conception of what is best for students, patients and the profession of this and future generations. Having formed a clear and definite opinion on this extremely important public question, for the sake of the high ideals of life, get out and work for the enactment of this opinion. There has never been a public question before the people of Virginia, which so clearly calls for the opin-

ion and political influence of physicians as this one.

Let the doctors of Virginia exert every effort to see that the majority opinion on this question is enacted into law by the coming legislature.

The Open Letter.

It is felt by the Editor that the Correspondence columns of the VIRGINIA MEDICAL MONTHLY should be open, under proper restrictions, to the members of the Society. If an individual member feels that he has an important message, that that message affects the welfare of the profession, and that he wishes to come before his fellows in a signed statement in the State journal, the Correspondence Department of the journal is open to him.

In this issue of the MONTHLY there will be found two signed letters to the members of the Society, discussing in the open something of what had been heard in conversation and private discussions about the legislative record of a senator upon matters in which the medical profession is interested.

Personnel of the Commission on Medical Education in Virginia.

By the terms of the legislative act, the Commission on Medical Education in Virginia consisted of two members appointed by the President of the Senate, two by the Speaker of the House, and five by the Governor, of whom one was to be a representative of the University of Virginia and one from the Medical College of Virginia. The personnel of the Commission was completed as follows: From the Senate, Hon. M. B. Booker, of Halifax, and Dr. J. Belmont Woodson, of Nelson; from the House, Hon. Wilbur C. Hall, of Loudon, and Dr. W. D. Prince, of Sussex; by the Governor, Dr. Beverley R. Tucker, of Richmond; President Julian A. Burruss, of Virginia Polytechnic Institute; Dr. E. L. Kendig, of Victoria; Dr. Theodore Hough of the University of Virginia, and Dr. Stuart McGuire of the Medical College of Virginia. The Commission organized on June 28, 1920, by the election of Hon. Wilbur C. Hall as chairman and Dr. Theodore Hough as secretary.

In Writing Advertisers, Please Mention This Journal.

News Notes

Lynchburg Meeting, Medical Society of Virginia.

Interest is centering more and more in the approaching meeting of the Medical Society of Virginia to be held in Lynchburg, October 18-21. Dr. Geo. J. Tompkins, chairman of the local committee of arrangements, with an able corps of assistants, is active in work looking to the success of this meeting. Information with regard to the meeting may be obtained of him, or from the President, Dr. A. L. Gray, Richmond, or the Secretary, Mr. G. H. Winfrey, Richmond.

Two attractive features of this meeting will be the Orations on Medicine and Surgery, Dr. Alfred Stengel, Philadelphia, having accepted the invitation to deliver the former, and Dr. William J. Mayo, Rochester, Minn., the latter. Space has already been taken for a number of commercial exhibits. Members intending to read papers might take time by the forelock and send titles to the Secretary-Treasurer, 104½ West Grace Street, Richmond, before going on their vacations. This will insure getting your name on the program in its proper place.

Delegates should be appointed by component societies to represent them at the Lynchburg meeting. Each component society is entitled to one delegate and one alternate for each thirty-five members or major fraction thereof, with the understanding that each component society shall have at least one delegate and one alternate. Please send names of the delegates to the Society offices as promptly as possible.

This year, nominations are to be made to fill vacancies in the Executive Council for one councilor from the State-at-large, and for the second, fourth, sixth and ninth districts. This matter should be engaging the attention of all societies located in the above named districts.

Eliminating Venereal Diseases at Penitentiary.

According to the annual report made by the directors of the State Penitentiary, much progress is being made in eradicating venereal diseases among State convicts. As a result of the investigation of medical conditions, an examination was made of each prisoner at the Penitentiary and State Farm and now each pris-

oner is examined for venereal infection within forty-eight hours after admission. At the time of the first examination, 25% of all prisoners at Richmond were syphilitics; of 170 convicts at the State Farm, 33% had syphilis; and of 258 convicts at road camps, 14% were suffering from syphilis. With the system now inaugurated of segregating all convicts afflicted with venereal diseases and of treating all new convicts, there is every reason to believe that venereal diseases will soon be eliminated at these State institutions.

American Medical Association.

The seventy-second annual session of the association was held in Boston, June 7-10, inclusive, under the presidency of Dr. Hubert Work, of Pueblo, Colo. There was a registered attendance of 5,506—the third largest in the history of the Association. There were fifty members attending from Virginia. Delegates from this State were Drs. Ennion G. Williams, Richmond; Southgate Leigh, Norfolk, and Paul W. Howle, Richmond. As the third delegate, Dr. Jos. T. Buxton, Newport News, and none of the alternates could attend, Dr. Howle was appointed by the president of the Medical Society of Virginia, Dr. A. L. Gray, to attend as Virginia's third delegate.

The entertainments, scientific sessions, commercial and scientific exhibits were all so attractive as to leave nothing to be desired.

St. Louis, Mo., was selected as the 1922 place of meeting and the following officers were elected:—President, Dr. Geo. E. deSchweinitz, Philadelphia; Vice-President, Dr. Frank B. Wynn, Indianapolis; and Dr. Alex. R. Craig, as secretary; Dr. Wm. A. Pusey, as treasurer, and Dr. Dwight H. Murray, as speaker of the house of delegates, were re-elected.

Married—

Dr. E. Leavenworth McGill, Petersburg, Va., and Miss Patty Radcliffe Fitts, Wilmington, N. C., June 28.

Dr. Campbell Harris and Miss Winifred Gertrude Gwynne, both of Richmond, June 3.

Dr. John Stuart Hume, Norfolk, Va., and Miss Isabel Hamilton Christian, Lexington, Va., June 4.

Dr. Richard Hugh Wood, a recent graduate of the Medical College of Virginia and now an interne at St. Elizabeth's Hospital, Richmond, and Miss Maria Booth Robinson, of King William, Va., June 18.

Dr. Allen Tupper Hawthorne, Harrisonburg, Va., and Miss Dorothy Turner, Afton, Va., June 2.

Dr. William Wirt Waddell, Jr., until recently of Charlottesville, Va., but now of Norton, Va., and Miss Barbara Belle Flock, Williamsport, Pa., June 14.

Dr. George G. Snarr and Miss Reba Beard, both of Harrisonburg, Va., June 29.

Dr. Quintus Harper Barney and Miss Nell Richard Files, both of Wardensville, W. Va., June 25.

Dr. Benjamin J. Read and Miss Chloe Dymple Spriegel, both of Red Jacket, W. Va., June 8.

Dr. Henry A. Christian, physician-in-chief of Peter Bent Brigham Hospital, Boston, Mass., and Miss Elizabeth Sears Seabury, Longwood, Mass., early this month. Dr. Christian is a native of Lynchburg, Va., and is well known in this State.

Changes at Richmond Naval Recruiting Station.

Lieut. Leslie B. Wiggs, M. C., U. S. Navy, who has been attached to the Naval Recruiting Station in this city, has been ordered with the marine expeditionary forces to Port au Prince, Haiti, West Indies, and, with his wife, sailed from Hampton Roads on June 23. While in this service, he will hold the rank of captain.

Lieut. Toson O. Summers, recently of the Marine Barracks, Quantico, Va., has succeeded Dr. Wiggs as medical officer of the local navy station. Dr. Summers graduated from the Medical College of Virginia in April, 1917, and at once entered the government service. He has been stationed at Quantico for the past eighteen months. Dr. Summers is a brother of the late Dr. B. E. Summers, former medical inspector of this city, who died while on duty at the Marine Barracks at Quantico during the influenza epidemic in 1918.

Dr. Louis G. Roberts,

Moormans River, Va., was elected one of the directors of the Albemarle County Fair Association at its organization meeting in June.

Dr. D. Hunter Marrow,

Who has been spending some time at Daytona, Fla., is at his former home, Union Level, Va., for the summer months.

Dr. I. S. Stone,

Of Washington, D. C., formerly of Loudoun

County, Va., was given the honorary degree of Doctor of Laws by Georgetown University, on June 14. Dr. Stone taught in the Medical Department of that university for many years and is now Professor Emeritus of Gynecology. He is a member of the Medical Society of Virginia and is well known and highly esteemed by the profession of this State.

Medal Awarded Dr. Mayo for Achievements in Surgery.

Recently, the Boston Surgical Society determined to award periodically a gold medal to the American surgeon contributing most to the advancement of surgery. This was decided upon and dedicated as a tribute to Dr. Henry Jacob Bigelow, the noted surgeon of Boston, who died about 1890.

The first medal was awarded to Dr. William J. Mayo, of Rochester, Minn., on the evening of June 6, the day prior to the meeting of the American Medical Association in Boston. Dr. Mayo, in his address at that time, gave an intensely interesting history of the whole career of Dr. Bigelow.

Dr. P. St. L. Moncure

Has returned to his home in Norfolk, Va., after a ten days' visit at the Mayo Clinic, Rochester, Minn.

Another Doctor Candidate for Legislature.

Dr. Israel Brown, of Norfolk, Va., is a candidate for legislature, from that city, and is receiving the endorsement of the public as well as the profession.

Dr. E. M. Chitwood,

Who has been practising for some years at Austinville, Va., has moved to Wytheville, Va., where he will continue his work.

The National T. B. Association,

At its annual meeting in New York City, last month, elected Dr. James Alexander Miller, of New York City, president, and Dr. George M. Kober, of Washington, D. C., secretary. As illustrative of the wonderful strides which have been made in eradicating tuberculosis, figures were given in a paper by Dr. Lee K. Frankel, of the Metropolitan Life Insurance Company, showing that there had been a reduction of 39% in the tuberculosis death rate, in the registration area of the United States, from 1900 to 1919, or 60,000 fewer deaths in 1919 than there would have been but for the anti-tuberculosis fight.

Among the Virginia doctors attending the meeting were: Drs. Walter C. Klotz, Charlottesville; H. G. Carter, Burkeville; E. E. Watson, Salem, and Dean B. Cole, Richmond.

Young Workers Need Health Protection.

The United States Department of Labor, through the Children's Bureau, has just issued a report called "Physical Standards for Working Children," in which a committee of eleven physicians appointed by the Children's Bureau explain how the health of children between 14 and 18 years of age may be protected while at work.

An effective means of protection lies in the adoption of physical standards which all children entering industry are required by law to meet. Eighteen states now have a law requiring children to be examined before going to work. The most comprehensive of these laws requires that a child shall be of normal development for his age, in sound health and physically fit for the occupation which he is about to enter.

The report of the committee contains minimum standards of height and weight for specified ages, based on the most trustworthy experience and present day practice. It also lists defects for which children should be refused certificates, remediable defects for which they should be refused certificates pending correction, and conditions requiring supervision under which provisional certificates for periods of three months may be issued. The points which examining physicians should cover if adequate protection is to be given the working child are given in detail in the report, which also contains a record blank for the use of physicians in making these examinations. Periodical examinations for children after they have gone to work are recommended by the committee as a still further means of protection.

The Proposed Public Health Institute,

Which the U. S. Public Health Service contemplated holding in Washington, D. C., during the fall of 1921, has been indefinitely postponed. It is hoped that it will be possible to arrange to hold a similar institute in Washington during the spring or fall of 1922. This action has been decided upon after several conferences between officers of the Service and officers of the American Public Health Association.

The fiftieth annual meeting of the American

Public Health Association is to be held in New York City, November 14-18, 1921. Several other activities are planned by the association in connection with their semi-centennial meeting in November, 1921, and it was at the request of the American Public Health Association that the Service institute for next fall was abandoned.

The above announcement was made by direction of the Surgeon General, on June 20, 1921.

Saving Babies in New Zealand.

Over one-fourth of the babies born in New Zealand of both well-to-do and poor parents, are reached by the infant welfare measures in force in that country and they have been most effective in saving the lives of babies. In a period of 45 years, it is stated that the infant mortality rate in New Zealand has been more than cut in half until now it is the lowest rate of any country in the world. During the last ten years the rate of decrease has been almost double what it was for the preceding decade.

Beginning in 1901 and covering the period in which there was the greatest decline, the government has given special attention to the problem of providing suitable maternity and infant care. Among important public measures desiribed in the report are regulations for the training and practice of nurses and midwives, the establishment of state maternity hospitals, and more careful supervision of homes in which children are boarded out. The government also subsidizes the work of the Royal New Zealand Society for the Health of Women and Children. One of the most important activities of this society is an extensive system of baby health centers at which specially trained nurses give free advice and instruction to mothers.

Dr. Ware Has Narrow Escape.

The latter part of June, Dr. R. B. Ware and Knowlton Williams, of Amherst, Va., narrowly escaped serious injury, when an automobile driven by Mr. Williams rolled down a steep bank near Amherst. In rounding a curve, the steering wheel got out of control and the car went over on its top. Mr. Williams was not hurt but Dr. Ware received slight cuts on the back of his head, face and one limb. He was unconscious and was pinned under the car for a few minutes.

Dr. T. S. Hening

And daughter, of Jefferson, Va., in June took a motor trip to Amherst and Nelson Counties, this State, and joined a camping party for trout fishing.

American Jews Extend Consumptive Relief Work.

To enlighten the Jewish people as to the means of safe-guarding themselves against tuberculosis, the Jewish Consumptive Relief Society of Denver will shortly start a country-wide campaign with an idea of extending its activities to include not only the cure but the prevention of tuberculosis. In large cities, "Keep Well" circles will be organized and they will be addressed by prominent physicians in frequent public gatherings. Free examinations will also be given those who suspect that their lungs are affected.

Dr. and Mrs. J. C. Coulter

And daughter, of Charlottesville, Va., recently visited the doctor's parents at his boyhood home at West Sunbury, Pa. They were there during commencement week of the West Sunbury Academy, where Dr. Coulter received his academic education, and the reunion with old classmates and friends proved a most enjoyable occasion.

Dr. and Mrs. J. F. Geisinger

And son have returned to their home in this city after a motor trip to Virginia Beach.

Dr. Allen W. Freeman,

Formerly of this city and assistant State Health Commissioner of Virginia, but more recently Commissioner of Health of Ohio, has been appointed resident lecturer on public health administration in the Johns Hopkins University School of Public Health, and assumed his new duties the first of this month. He succeeds Sir Arthur Newsholme, K. C. B., who is returning to England.

Dr. Klotz Resigns to Go to Tennessee.

Dr. Walter C. Klotz, medical director of Blue Ridge Sanatorium, near Charlottesville, Va., has tendered his resignation to take charge of the National Sanatorium for tuberculous ex-soldiers at Johnson City, Tenn.

Dr. D. L. Kinsolving,

Of Abingdon, Va., is at present at Baggs, Wyo., but expects to return to Virginia shortly.

Dr. M. L. Dalton

And son, of Floyd, Va., have returned home after a vacation visit spent with Dr. J. B. Dalton, in this city.

Dr. J. R. Couch,

Who has for some years practised at Alberta, Va., has moved to 304 West Main Street, this city, where he will continue the practise of his profession.

Visit Potter Clinic.

Drs. Rufus Kight and C. J. Andrews, of Norfolk, Va., recently attended the Potter Maternity Clinic, at Buffalo, N. Y.

Nurses' Training Schools in Government Hospitals.

Owing to the great demand for nurses throughout the country and especially in government hospitals, the U. S. Public Health Service has decided to open training schools in such of its hospitals as may be fitted for this work. As a beginning, schools will be opened in the hospital at Fox Hills, Staten Island, New York, and at Ft. McHenry, near Baltimore. Schools will be opened in other hospitals as conditions permit.

The Second International Congress of Eugenics

Is to be held at the American Museum of Natural History, New York City, September 22-28, 1921, inclusive. Dues for sustaining memberships are $100, and for active memberships $5. For any information, address Dr. C. C. Little, secretary-general, American Museum of Natural History, 77th Street and Central Park West, New York City.

Dr. Sydney J. Baker,

Of South Richmond, Va., sailed early this month for England, to visit his mother who lives just outside of London.

Dr. C. Augustus Simpson,

In charge of the Washington, D. C., Radium and X-ray Laboratory, announces the removal of his offices to 1610 Twentieth Street, Northwest, that city.

Clinic at Emporia.

In the clinic held at Emporia in June, more than fifty children were operated on for adenoids and defective tonsils. Dr. E. T. Gatewood, of Richmond, was the operating surgeon, and was assisted by Drs. H. B. Mahood, G. M. Naff and M. H. Tredway, of Emporia, and a staff of nurses.

Doctors Among Directors of Va. Peanut Exchange.

Among the nineteen directors just nominated to the Va. Peanut Exchange are Drs. C. J. Bradshaw, Carrsville, Va., and I. A. Ward, Belvidere, N. C.

The American Pediatric Society,

At its annual meeting held at Swampscott, Mass., in June, elected Dr. Maynard Ladd, of Boston, president, and re-elected Dr. Howard C. Carpenter, of Philadelpiha, secretary-treasurer.

Dr. George A. Piersol

Has tendered his resignation as professor of anatomy at the University of Pennsylvania, after a service of thirty years.

The American Medical Editors' Association,

At the annual meeting in Boston, elected Dr. Frank C. Lewis, New York, of INTERNATIONAL JOURNAL OF SURGERY, president, and re elected Dr. Joseph J. MacDonald, Jr., New York, of AMERICAN JOURNAL OF SURGERY, secretary-treasurer.

Italians in Brooklyn to Build Hospital.

A campaign was begun in June for the erection of an Italian hospital in Brooklyn, N. Y. An Italian society has already purchased a building for this purpose at a cost of $200,000. Italians now own three of their own hospitals, two in New York and one in Pittsburgh, while still another is in course of construction in San Francisco.

Dr. and Mrs. Paul Redd,

Of Highland Park, this city, were recent guests of friends at their camp on York River this State.

Dr. and Mrs. H. A. Bullock

Have returned to their home in this city after a motor trip to Norfolk and Virginia Beach.

Dental Clinics in Wise County.

During a series of dental clinics recently held in Wise County, 476 children were treated and all had their teeth cleaned. There were 285 extractions and 950 teeth were filled. The expense was less than $500 for the period and the receipts from those able to pay a small fee just about covered the cost of the clinics.

Dr. L. P. Michaels,

Of Rio Vista, Va., has announced his candidacy as an independent for the Hoose of Delegates at the November election.

American Nurses Memorial in France.

Of all the permanent memorials of the Great War that Americans have left in France, none gives more promise of growing in importance than the new Florence Nightingale Training School for Nurses established at Bagatelle, in the beautiful Bordeaux suburb of Talence. It is dedicated to the memory of the 284 American nurses who gave their lives in the war and was given oy the nurses of America, through small individual subscriptions.

More Deaths by Accident than Cancer.

According to a report just made public, accidents kill more people in the United States in one year than the much dreaded scourge of cancer. During 1918, the last year for which reports are now available, there were 83,852 deaths from accidents. The largest number of these were from railroad and street car accidents, and the next largest from falls. It was shown that automobile fatalities have increased tenfold during the past decade while the "safety first" movement has appreciably reduced the number of deaths on railroads and street cars.

Dr. Livingston Farrand

Has been elected president of Cornell University to succeed Dr. Jacob G. Schurman, resigned. Dr. Farrand was for some years executive secretary of the National Association for the Study and Prevention of Tuberculosis and, since 1917, has been connected with the work of the American Red Cross.

The Virginia Tuberculosis Association,

With headsuarters in Richmond, in June received its charter from the State Corporation Commission to carry on the work of prevention and relief of tuberculosis in Virginia and to promote educational publicity on tuberculosis. Seventy-two directors were appointed, with Capt. W. W. Baker, of Chesterfield County, as president, and Dr. Roy K. Flannagan, of this city, as secretary.

This association also has charge of the T. B. Christmas Seals in this State. It has placed with the National Tuberculosis Association already its 1921 order for 18,000,000 Christmas Seals. In Virginia, alone, last year, the sale of these seals totaled $50,000. Commencing the first of this month, the association has inaugurated a program whereby permanent tuberculosis associations will be established in every county of the State. These will care for the sale of the Christmas Seals and direct the local tuberculosis program for the coming year.

Court Upholds Power to Quarantine for Venereal Disease.

According to *Public Health Reports*, the power of health authorities to quarantine persons reasonably suspected of being sources of infection of venereal disease is upheld by the Court of Appeals of Alabama, as evidenced by the following case: A woman was arrested on the charge of vagrancy, and was quarantined by the health officer of Birmingham. She brought habeas corpus proceedings to secure her discharge, but the court held that "the health officer, under the facts, was authorized to consider petitioner within the class of those reasonably suspected as being sources of infection," as provided by statute.

New Chair at University of Pennsylvania.

We understand that a chair of applied endocrinology has been created at the University of Pennsylvania, and that Dr. Charles E. de M. Sajous has been appointed to same.

Peking Union Medical College,

Which has been erected by the China Medical Board of the Rockefeller Foundation, is to be dedicated at ceremonies to be held during the week of September 15-22. At this time will be held also a medical conference to which scientists from America, Europe and the Far East have been invited. Dr. Henry S. Houghton will be inaugurated as director of the college at this same time. The institution comprises not only the medical school, but also a 250-bed hospital, with out-patient clinics, a nurse training school and a premedical school—an institution of junior college grade with a distinct faculty and group of laboratory and classroom buildings.

Get Your Gambusia!

So much confidence does the State Board of Health place in gambusia as a means of freeing ponds of mosquitoes, that it has offered to furnish gambusia free of charge to everybody who owns a pond and sends container for gambusia to their offices in Richmond. Gambusia is a fish of the minnow family and lives

by eating the eggs of mosquitoes. In this way they will kill off future generations of mosquitoes.

Dean, University of Michigan Medical School.

Dr. Hugh Cabot, formerly of the Harvard Medical School, but who has been head of the department of surgery in University of Michigan Medical School, since the fall of 1919, has been made dean of the school of medicine, succeeding Dr. Victor C. Vaughan, whose resignation after a service of thirty-four years, we recently announced.

Successor to Dr. Thayer.

Effective July 1, Dr. G. Canby Robinson, of the class of 1903, Johns Hopkins Medical School, but now professor of medicine and dean of the medical faculty of Vanderbilt University, Nashville, Tenn., has been borrowed to be professor of medicine at Johns Hopkins Medical School and physician-in-chief to Johns Hopkins Hospital, succeeding Dr. William S. Thayer, recently resigned.

Dr. William A. White,

Medical superintendent of St. Elizabeth's Hospital, Washington, D. C., was elected president of the American Psychopathological Association at its recent meeting.

The International Journal of Gastro-Enterology,

Under the editorship of Dr. A. L. Soresi, of New York City, made its initial appearance in July. It will be the aim of those in charge to make the journal useful to the specialist as well as the general practitioner and to keep the journal 100% scientific. The publishers are to be congratulated on the excellent appearance of this first issue as well as on the material incorporated in it.

State Health Commissioner of West Virginia.

Dr. William Thornton Henshaw, of Martinsburg, W. Va., has been appointed State Health Commissioner of West Virginia.

Re-opening of Manila Segregted District Proposed.

We note from the JOURNAL OF THE P. I. MEDICAL ASSOCIATION, that the Council of Hygiene is considering the suggestion of re-establishing the segregated prostitution district of Manila, which was closed in 1918. The proposition aims to reduce the number of cases of venereal diseases, which are said to be on the increase since closing houses of ill repute in that city.

Distribution of Physicians Necessary.

The JOURNAL OF THE A. M. A., referring to a statement made at the meeting of the American Institute of Homeopathy to the effect that the United States was suffering from a shortage of 25,000 physicians, states that there is no shortage as far as numbers are concerned, but that the problem is one of distribution. There is now an average of one physician to every 726 people, but physicians are not attracted to the rural districts where they cannot, or think they cannot, make a living.

Bust of Morton in Hall of Fame.

On October 16, in celebration of the Diamond Jubilee Anniversary of Morton's First Public Demonstration of Ether Anesthesia, a bronze bust of Dr. Wm. T. G. Morton will be placed in the niche assigned to him in the Hall of Fame, by American Anesthetists. Contributions for this fund should be sent Dr. F. H. McMechan, Secretary-Treasurer of Associated Anesthetists, Lake Shore Road, Avon Lake, Ohio.

Industrial Research Laboratories.

Research facilities and the development activities of American industries are to be described in the forthcoming revision of *Bulletin of the National Research Council*, Number 2, "Research laboratories in industrial establishments of the United States of America." Only 300 such laboratories were listed in the first edition but it is hoped that several hundred new names will appear in the revision and that a more nearly complete reference list will thus become available. The general demand for the first edition of the Bulletin shows the wide interest in this subject, and the importance of having every laboratory which devotes even a portion of its time to research properly listed.

The Council requests information from directors of research who have not already supplied it. The following data are wanted:—Name and address of firm and address of laboratory; name of director of research; number on laboratory staff (classified as chemists, engineers, bacteriologists, etc.); approximate proportion of time spent on research; chief lines of research; unusual features of equipment; research laboratory space; date of organization of research laboratory and annual

expenditure for research. Confidential information is not desired.

This material should be furnished as promptly as possible to the Research Information Service, National Research Council, 1701 Massachusetts Avenue, Washington, D. C.

Medical Library Association.

The twenty-fourth annual meeting of the Medical Library Association, whose membership includes all of the larger medical libraries of the country, and a large number of individual members, consisting of those interested in furthering medical library work, was held in Boston June 6, 7, 8, 1921. The business meetings of the association were held in the Boston Medical Library. In addition to the address of the president, the program contained the report of a committee on standard classification, and the system used in the Boston Medical Library, and this as explained by the chairman, Mr. James F. Ballard, was adopted, as being the most practical solution for meeting the perplexing problems of classification. Several interesting and instructive papers were read.

In addition to the regular program, visits were made to the various libraries in Boston. In each case the members of the association were shown over the buildings and the various points of interest were explained. Visits were made to the Harvard Medical School Library, Boston Public Library, Harvard College Library, Treadwell Library, and the Boston Athenaeum Library. Of particular interest was an exhibit of rare medical items from the library of Dr. Edward C. Streeter, of Boston, spread in the exhibition room of the Boston Public Library. The exhibit was specifically epidemiological, the essential literature on fevers from Hippocrates to Lancisi, with a few sections surh as plague, syphilis, venesection superadded.

The permanent headquarters of the Medical Library Association are in the Medical and Chirurgical Faculty Building, at 1211 Cathedral Street, Baltimore, Maryland.

Mosby's Catalogue.

The C. V. Mosby Company, medical publishers of St. Louis, have issued a 96-page illustrated catalogue of their medical, nursing, pharmaceutical and dental publications. Many books of real worth are listed in this.

Dr. and Mrs. S. B. Cary,

Of Roanoke, Va., were recent visitors at Gloucester, Va.

Dr. and Mrs. Stuart McGuire,

Of this city, are home again after a short visit to Canada in June.

Wanted

To buy an improved Virginia farm of from 50 to 100 acres, preferably located in Valley of Virginia, good roads, close to good schools, etc., and near a thriving town that would make a good location for a doctor in active practice, age 40. Address communications to "S," care this journal.—(Adv.)

Obituary Record

Dr. William B. Daniel,

A leading physician and citizen of Prince George County, Virginia, died at the home of a son in Richmond, June 12, his death being attributed to the infirmities of age. Dr. Daniel was 81 years of age and a graduate of the Medical College of Virginia in 1863. He was one of the best known citizens of Southside Virginia and represented Prince George and Surry Counties in the House of Delegates for two terms. He was a supervisor of Prince George County for a number of years, a member of the county board of health and honorary president of the Prince George County Medical Society. His widow, several children and a large family connection survive him.

Dr. Daniel was active in church work and had for forty years been a deacon in the Baptist Church at Carson. He was buried with Masonic honors.

Dr. Wallace Calvin Abbott,

Pioneer in the field of alkaloidal medicine, founder and for more than thirty years president of the Abbott Laboratories, died at his home in Chicago, July 4, after being in bad health for several years. He was born in Bridgewater, Vermont, in October, 1857, and, upon completion of his academic education, studied medicine at the University of Michigan, from which he graduated in 1885, after which he located in Chicago and engaged in the practice of his profession.

Dr. Abbott was a man of great ability and charm of manner. He was co-author, with Dr. William F. Waugh, of several medical books and was editor-in-chief of the AMERICAN JOURNAL OF CLINICAL MEDICINE. His widow and a daughter survive him.